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Equipping Culturally Competent Students: The Development of Cultural Intelligence in the Classroom and Beyond

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EQUIPPING CULTURALLY COMPETENT STUDENTS: THE DEVELOPMENT OF CULTURAL INTELLIGENCE IN THE CLASSROOM AND BEYOND

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by
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ABSTRACT

In a globalized and multi-cultural world, it is increasingly important for universities to produce graduates with the intercultural competencies to excel in their professions, provide leadership in multi-national arenas and organizations, and thrive in diverse local communities. This quasi-experimental, quantitative study explored the effects of various methods of classroom instruction on participants' change in cultural competency as measured by the Cultural Intelligence Scale (CQS). The changes in CQS scores were analyzed across three groups: a traditional classroom setting, an experiential classroom setting, and an enhanced study abroad group. The results showed substantial and statistically significant change in both classroom groups, with the experiential group showing a larger change in metacognitive scores. The enhanced study abroad sample was very small, but still showed statistically significant changes in metacognitive and behavioral dimensions. This study identified significant opportunities for future research to fill the gaps that exist in the quantitative research on cultural intelligence in the context of higher education. The results of this study also inform both policy and practice recommendations for higher education institutions seeking to equip both faculty and students in cultural competency.

DEDICATION

This dissertation is dedicated to all those who intentionally seek to build bridges and cross cultures to impact the world. May this generation of students engage the world in a way that seeks understanding in the midst of difference, works toward unity (rather than uniformity) in the face of diversity, and exhibits love instead of hate.

It is also dedicated to my parents who cultivated in me a love for the people and cultures of the world and empowered me to go to cross the boundaries of nations, communities, and social groups with the intentionality to learn and to serve.

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CHAPTER ONE

Much of culture cannot be learned from a book… [and the] 21st century will need a lot of creativity from persons developing theories and teaching practices for cross-cultural management.
(Hofstede, 2003, p. 39)

INTRODUCTION

Smart phones provide information from around the world to the palm of one's hand. Social media creates connections with people in places one has never been and likely will never go. International trade transports goods and services across time zones and oceans and is no longer reserved for a small number of multi-national, Fortune 500 companies. The lure of economic or educational opportunities and the destruction caused by man-made tragedies have been juxtaposed together to create unprecedented levels of global migration. Communities that were once homogenous groups of extended family members are becoming multi-racial, multiethnic, multi-lingual neighborhoods of many nationalities. Exposure to new places, peoples, and cultures has increased exponentially in both the mega-cities and the small towns of the world.

As these global connections continue to multiply in all sectors of society, intercultural competency has become increasingly important in business, government, education, healthcare, engineering, information technology, sports, social work, community organizing, and virtually every other field. Organizations and corporations now budget significant amounts to train employees in areas of intercultural competency. As higher education institutions all over the world recalibrate to equip students to enter increasingly globalized marketplaces and multiethnic communities, the inclusion of intercultural competencies in curricula and assessment is a growing priority. This study

used the Cultural Intelligence Scale (CQS) to measure the effectiveness of various instructional methods in increasing cultural competency in the context of higher education.

Statement of the Problem

As institutions of higher education have recalibrated in the context of a more connected and interdependent world, increased internationalization efforts have emerged. For some institutions, this has included a more intentional recruitment of international students. The most recent Open Doors Fast Facts report (2017) documented 1,078,822 international students studying in the United States during the 2016-2017 academic year. This was a 3.4% increase over the previous year, and the eleventh year of an increase of greater than 2.5%. The most recent statistics available for the number of students from the United States studying abroad are for the 2015-2016 academic year. They reflect a 3.8% increase over the previous year with 325,339 students from the United States studying abroad. Increasing both the sending and receiving of international or study abroad students is certainly an important piece of internationalization efforts in education, but even with these increases, the numbers reflect a small percentage of the total number of students enrolled at institutions of higher education in the United States and globally. For higher education to really address the critical needs of a globalized world, intentional efforts must be made to incorporate internationalization efforts that impact a broader number of students. For some institutions, this has included curricular revisions as the certification bodies for specific disciplines like nursing and social work have identified critical competencies related to cultural competence. As intercultural competency

becomes an increasingly important outcome across disciplines in higher education (Glassner & Schapiro, 2018; MacNab, Brislin, & Worthley, 2012), professors and institutions must identify ways to develop this competency in a much higher percentage of the student body. The broadest, and possibly most needed, application of this is instruction and interaction in the general education curriculum that is designed to expose students to and equip students for cross-cultural interactions by increasing their cultural competency in the classroom. This is a critical need in higher education today.

Purpose of the Study

The purpose of this study was to explore the impact of various educational methods on the development of cultural competency in higher education classrooms and programs of study. Three groups were used to study the impact of different classroom-based and study abroad methods of instruction. Cultural competency was measured in all three groups with pre- and post-testing using the CQS, an internationally recognized and validated assessment of cultural competency. The instructional methods that were associated with the largest increase in cultural intelligence (CQ) were identified. As intercultural competency becomes an increasingly important skill in a globalized world, this research can be used to increase the quality and relevance of academic instruction to better educate and equip a broader cross-section of students.

Theoretical Frameworks

This study was built on the integration of two theoretical frameworks—a theory of experiential learning and a theory of cultural intelligence. These frameworks have been connected in previous literature (Bucker & Korzilius, 2015; MacNab B., 2012;

MacNab, Brislin, & Worthley, 2012; Ng, Van Dyne, & Ang, 2009), but are far from saturation as research on CQ in education is still a developing field.

Kolb's Experiential Learning Theory

Though there are many theories and frameworks to be considered regarding education and pedagogy, this research was based on Kolb's experiential learning theory (Kolb, 1984). Intercultural competency is not merely a theoretical concept. Knowledge of cultural differences and the impact of culture is a start, but competency only becomes evident in the experience of actual interaction across cultures. In the early writings and development of Kolb's theory, Fry and Kolb (1979) acknowledged a foundational need in education for an "approach that integrates personal experience and practical application with perceptive appreciation and understanding of concepts, and in so doing requires the development of all these competencies" (p. 80). Kolb (1984) later defined experiential learning as "the process whereby knowledge is created through the transformation of experience. Knowledge results from the combination of grasping and transforming experience" (p. 41). Kolb conceptualized learning as a four-stage cycle where there is: (1) a concrete experience; (2) observations and reflections of that experience; (3) the formation of an abstract concept based on those reflections; and (4) the application and testing of that concept or idea as a guide in new situations (Figure 1.1). This cycle of experiential learning theory provided a framework that integrated the teaching and learning process through active participation of the learner (Fry & Kolb, 1979). It was used in this research as a foundation for the exploration of instructional methods to increase cultural competency in the classroom and in an enhanced study abroad context.

Figure 1.1 Kolb's Experiential Learning Cycle

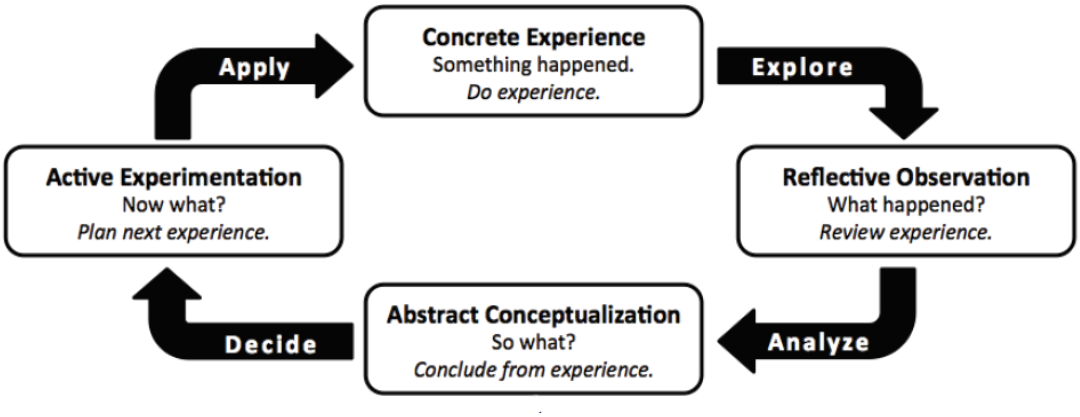

Figure 1.1. Visual representation of Kolb's experiential learning cycle with explanatory questions and key actions. From *International Service-Learning: Faculty Engagement and Transformation,* by Kristen K. White, 2017. Copyright 2017 by Kristen K. White. Reprinted with permission.

The well-established educational framework of experiential learning and the more recently developed cultural intelligence theory were integrated to provide a solid theoretical foundation to explore the role of experiential learning in developing cultural competency.

Cultural Intelligence (CQ)

A second framework was chosen as both a foundational theory and also the measure for this research. Some models of cultural competency take a culture-specific approach and emphasize a linear process of learning information and practices relevant to a particular culture, while others focus on developing a sensitivity to culture (Bennett, 1986). Both models are certainly valuable, but the realities of the current global village with increasingly diverse and multiethnic contexts require intercultural educators to consider a broader cultural approach that addresses interaction with rather than mere

knowledge of or sensitivity to another culture. The CQ framework provides such a structure and its four-dimensional process integrates well with the experiential learning cycle. Recent CQ research has provided initial evidence that experiential approaches are important in the development of CQ, especially in the metacognitive dimension that bridges thought and action (MacNab, Brislin, & Worthley, 2012). In light of this reality, and in an effort to add to the literature in this area, experiential learning theory and the theory of cultural intelligence were integrated in the analysis of the instructional methods to increase cultural competency as measured by the CQS.

Definition of Key Terms

Before identifying the research questions in this study, there are some key terms that need to be discussed and operationally defined.

Cultural Competence

There are many different definitions of cultural competence. Leung, Ang, and Tan (2014) conducted a review of existing research on intercultural competence and noted a similarity in various definitions relating to effective functioning across cultures. This broad but simple definition was utilized in this research, partly because the theory of cultural intelligence was of primary interest and provided a more specific definition. Nonetheless, it is important to acknowledge here the diversity of understandings and studies that make up the current field of inquiry with regards to cultural competence. The analysis by Leung, Ang, and Tan (2014) cited other reviews (Holt & Seki, 2012; Johnson, Lenartowicz, & Apud, 2006; Paige R. , 2004; Spitzberg & Changnon, 2009) of more than 30 intercultural competence models with more than 300 different constructs. Leung et al.

grouped these various constructs into the following operational categories: intercultural traits, intercultural attitudes and worldviews, and intercultural capabilities. Of all the models identified, the CQ model was identified as particularly promising with its focus on the development of capabilities rather than mere knowledge.

Cultural Intelligence

CQ is a four-dimensional model identifying motivational, cognitive, metacognitive, and behavioral components and is defined as "a person's *capability* to adapt effectively to new cultural contexts" (Earley & Ang, 2003, p. 59). Since CQ serves as a key theoretical framework for this study, it will be discussed and defined in much more detail in the Literature Review.

Enhanced Study Abroad

It is acknowledged that there are many different models for study abroad programs and that it is very dangerous to generalize program components and requirements. Some study abroad programs group students in dorms and classes on a university campus with other study abroad students, and though students are experiencing a host culture, immersion is more in the study abroad group than in the local context. Other programs focus on home stays and language learning so there is a very high level of immersion, but guidance in other areas is limited. The term enhanced study abroad was not used as a comparison to other programs, but to denote that there were some features of the program that did not follow typical study abroad models. Enhanced study abroad in the context of this study included the following elements:

1. Global Studies (GLST) Internship: Participants completed a fifteen-week internship with a non-profit organization that facilitated regular interaction and service in the local community.
2. Barefoot Language Learning: Participants documented at least 150 hours of focused language learning, either in a class or with a language mentor.
3. Ethnographic Research: Participants chose a cultural topic of interest and conducted ethnographic research, including formal and informal interviews and observations. The findings were reported in a 25-page paper.
4. Living Abroad: Participants completed guided assignments related to culture shock, intercultural dynamics, conflict, and preparation for re-entry to the home context. A portfolio of cultural experience was also compiled.
5. Guided Journals: Participants completed and received feedback on guided journal prompts each week.
6. Weekly Supervision: Participants met weekly with an on-site supervisor for processing and feedback.

Research Questions

This study focused on methods of developing cultural competency in the context of higher education. Various methods of instruction were utilized and the impact of these methods was measured using the CQS as a pre- and post-course assessment of cultural competency. Three research questions guided this study.

1. Is there a statistically significant difference in cultural competency, as measured by the CQS, as a result of classroom-based instruction?

2. Is there a statistically significant differential change in cultural competency, as measured by the CQS, between traditional classroom-based teaching methodologies and classroom-based experiential learning activities?
3. Is there a statistically significant difference in cultural competency, as measured by the CQS, as a result of an enhanced study abroad?

Research Hypotheses

Based on information identified in the Literature Review, the following research hypotheses were defined.

H1. It was hypothesized that classroom-based instruction in cultural competency would lead to a statistically significant increase in end-of-course CQS scores.

H2. It was hypothesized that there would be a statistically significant differential increase in scores resulting from classroom-based experiential learning activities compared to traditional teaching methods.

H3. It was hypothesized that an enhanced study abroad semester would lead to a statistically significant increase in end-of-semester CQS scores.

Significance of the Study

There is a growing body of research on study abroad and general cultural competency (Behrnd & Porzelt, 2012; Bennett, 2009; Clarke, Flaherty, Wright, and McMillan, 2009; Jackson, 2008; Lough, 2011; Pedersen, 2010; Trede, Bowles, and Bridges, 2013) and on study abroad and cultural intelligence (Hallows, Wolf, and Marks,

2011; Lokkesmoe, Kuchinke, and Ardichvili, 2016; Peng, Van Dyne, and Oh, 2015; Tuleja, 2008, 2014), but there is a gap in the literature on classroom methods of increasing cultural competency as measured by the CQS. The gap is even more pronounced when reviewing the quantitative research of classroom-based instructional methods. GLST 220 was an Intercultural Communication and Engagement course focused on developing intercultural competency in a classroom setting. Two residential sections of this course offered during the spring 2018 semester provided an opportunity to fill this gap in the literature through a quasi-experimental, comparative study to assess the effectiveness of different instructional methods on cultural competency. Since a substantial amount of the existing cultural competency literature, and much of the literature specifically focused on CQ, is focused on short-term study abroad, the GLST 499 Global Studies Internship course provided a third group that served as a comparison group for the classroom teaching methods.

This study is of great significance for Liberty University as GLST 220 is a required course for 16 undergraduate programs of study and is one of only four courses students can choose from to fulfill a communications elective requirement in the general education curriculum. The results of this study will be used to develop this course to be more effective in equipping students across many degree programs through a general education course.

There is also significance and application far beyond one institution. As an increasing number of universities in the United States and globally are incorporating the CQ model into their curriculum, knowledge gained from this study can be applied and the

research replicated and built upon in other settings. Gaps that currently exist in the literature regarding quantitative inquiry utilizing the CQS in education and the implementation of the CQ model into general education courses can also be filled. This study adds to the overall scholarship that universities can draw upon in seeking to better equip graduates to be professionals, leaders, and community members in an increasingly globalized world.

CHAPTER TWO

REVIEW OF THE LITERATURE

Individuals and corporations throughout the world speak of globalization and the growing inter-connectedness of businesses, governments, economies, educational institutions, and people. As global connections increase within and across sectors of society, corporations and governments have experienced the consequences of a lack of cultural competence. Many companies are spending significant funds training employees for success in this complex world of increasing intercultural connectivity. In business, the numbers show the need: 70% of international ventures fail due to cultural differences, 82% of multinational firms are losing money in China, and 90% of executives surveyed from 68 countries say cross-cultural management is their biggest challenge (Livermore & Van Dyne, 2015). The results may not be as quantifiable in educational settings, healthcare, or diplomacy, but the consequences are just as significant. With this reality increasing across all sectors of society, higher education has a responsibility to prepare students to function and lead more effectively in this globally connected world (Deardorff, 2011; MacNab, Brislin, & Worthley, 2012).

Theories and Models of Cultural Competency

Over the last forty years, educators have sought to identify intercultural competencies, conduct research, and develop curricula to equip individuals and organizations for this increasingly connected, multi-cultural world. There have been numerous attempts to define relevant terms, determine essential competencies, and develop assessment measures to provide guidance and structure in developing

intercultural education. Resources like the Handbook of Intercultural Training (Landis, Bennett, & Bennett, 2004) and the SAGE Handbook of Intercultural Competence (Deardorff, 2009) are evidence of this endeavor.

It seems that neither the literature nor professional conference networks have successfully reached a consensus on the terminology relating to the field of cultural competency (Deardorff, 2006; Deardorff, 2011; Fantini, 2009; Spitzberg & Changnon, 2009). In fact, studies suggest that most higher education institutions exploring cultural competency develop their own definitions based on internal faculty discussion rather than by utilizing definitions or frameworks that have been proposed in or based on the literature (Deardorff, 2006, 2011; Hunter, White, & Godbey, 2006). Variations of the term *intercultural competence* seem to be widely used in the literature with slightly varying operational definitions (Deardorff, 2011; Fantini, 2009; Perry & Southwell, 2011). For example, Fantini (2009) defined intercultural competence as "complex abilities that are required to perform effectively and appropriately when interacting with others who are linguistically and culturally different from oneself" (p. 458), while Deardorff (2011) said it is "effective and appropriate behavior and communication in intercultural situations" (p. 66), and Perry and Southwell (2011) summarized it as "the ability to effectively and appropriately interact in an intercultural situation or context" (p. 453).

Identification of core competencies is critical in the development of curricula and training programs, yet finding agreement in the field on competencies has been even more challenging than agreeing on overall definitions. Spitzberg and Changon (2009)

provided the most detailed review of 22 contemporary models of intercultural competency and attempted to compile listings of factors and skills that have been identified across the literature. This was not a comprehensive list, but it is the best overview of the largest number of frameworks that exists.

As competencies have been identified and operationalized, there has also been an increase in the number of assessment tools available. The options range from practitioner-developed surveys to theory-based, validated instruments that cover a wide range of topics, from linguistic levels to cognitive and behavioral competencies to attitudes believed to be linked to effectiveness. Fantini (2009) provided a very basic overview of 44 of these tools, but did not evaluate any of the psychometric properties. More recently, Matsumoto and Hwang (2013) provided the first peer-reviewed journal article focused on a detailed analysis of the constructs and psychometric properties of assessments of cultural competency. They selected assessments that met the following criteria: 1) attempted to predict outcomes reflecting successful adjustment to new cultural contexts; 2) designed for multiple uses with evidence of psychometric properties; 3) based on a culture-general approach; and 4) written as primary data articles (rather than summary review articles) reporting psychometric properties of the assessments that were published in peer-reviewed, English language journals. One of the models in this review was the CQ framework, measured by the CQS. This assessment has gained much international recognition in the last five years as a measure cultural competency and was utilized as the primary measure in this study.

The Cultural Intelligence Model

Cultural intelligence as a specific theoretical construct was developed by Earley and Ang (2003). While most major models or theories of intercultural competence were developed in the context of Europe or North America, CQ was developed in the very diverse microcosm of Singapore—a unique multiethnic, multi-cultural, island-city-nation in Southeast Asia. Earley and Ang (2003) expanded the initial cognitive theories of intelligence and proposed an interactional model of intelligence built on the foundation laid by Sternberg's (1988) Tribrachic Model which included internal, external, and experiential aspects of intelligence.

Theory and Framework

Earley and Ang (2003) proposed this construct of intelligence that reflects the ability to successfully adapt and interact effectively across cultures. As already noted, this skill is increasingly critical as globalization changes the landscape of the world. A large gap was identified in the cultural viewpoints and factors influencing the definition and operationalization of the concept of intelligence and this construct was proposed, in part, to fill that gap. At the core, CQ is a four-dimensional model identifying motivational, cognitive, metacognitive, and behavioral components and defined as "a person's *capability* to adapt effectively to new cultural contexts" (Earley & Ang, 2003, p. 59).

While this framework certainly overlaps with elements of social intelligence (Thorndike, 1936) and emotional intelligence (Goleman, 1995; Salovey, 1990), it includes a unique focus on a capability not considered in the other frameworks. Each of

the other frameworks were primarily operationalized and studied in mono-cultural interactions. A key element of CQ is the capability of the individual to create a new mental framework for the context and interpretation of another culture, rather than relying on existing frameworks of emotional and behavioral response (Earley & Ang, 2003). The initial CQ construct consisted of cognitive, motivational, and behavioral dimensions, but the cognitive construct was soon divided into two distinct dimensions to draw attention to metacognitive processes and provide further clarity. Livermore (2010) popularized the academic framework and research developed by Earley, Ang, Van Dyne, et al. (Ang & Van Dyne, 2008a; Ang, Van Dyne, & Koh, 2006; Ang et al., 2007; Earley & Ang, 2003) and added the practitioner labels of CQ Drive, CQ Knowledge, CQ Strategy, and CQ Action as illustrated in Figure 2.1.

Figure 2.1. The Four-Dimensional Model of Cultural Intelligence

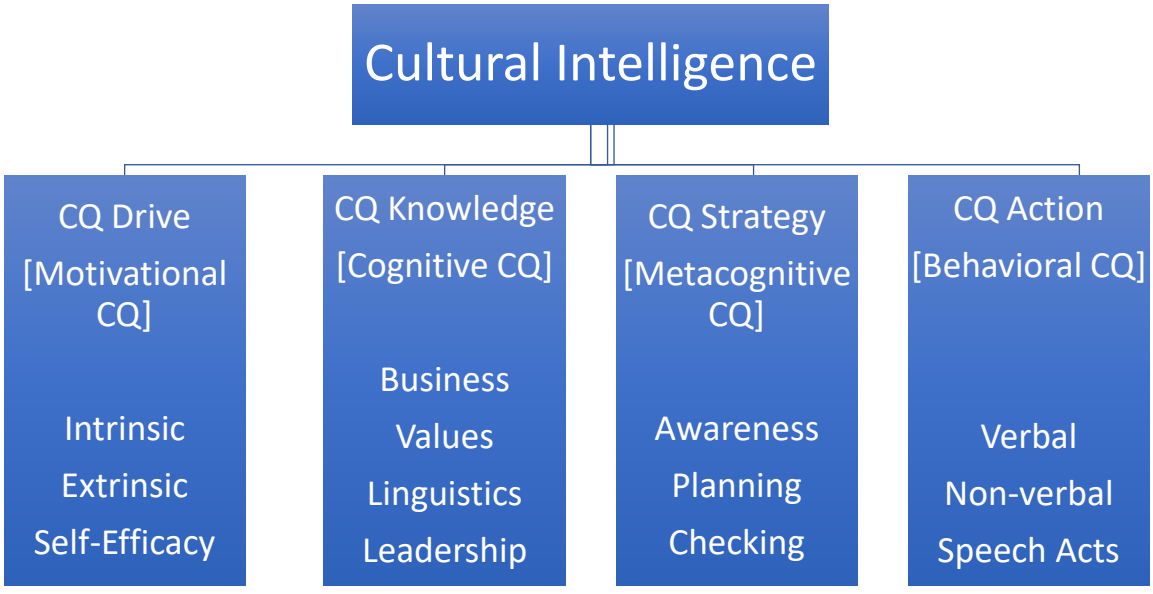

Figure 2.1. Visual representation of the four dimensions and 13 sub-dimensions of the Cultural Intelligence Model. Adapted and updated from *Leading with Cultural Intelligence: The Real Secret to Success*, by David Livermore, 2010, p. 25.

CQ Drive is "having the interest, confidence, and drive to adapt cross-culturally" (Livermore, 2015, p. 27). Not every individual is interested in learning about or interacting with other cultures, and this motivational dimension of CQ is an important factor in successful adaptation and in the development of CQ. The motivation might be: intrinsic – based on internal enjoyment of culturally diverse situations; extrinsic – based on external or tangible benefits from interacting cross-culturally; or based on self-efficacy – the level of confidence one has related to the ability to successfully interact in cross-cultural situations (Ang & Van Dyne, 2008a; Earley & Ang, 2003; Livermore, 2010). Motivation and confidence to engage in new settings or to adapt to new cultures influence an individual's response to intercultural opportunities.

Within the cognitive constructs of CQ Knowledge and Strategy, there are general, meta-level skills such as awareness, reasoning, analytical processes, memory structures, and language/communication constructs that are *etics*—universals that exist across cultures. At the same time, the way these etics are expressed, prioritized, or valued might vary by culture, resulting in a significant number of *emics*—things that only make sense within that particular context. CQ addresses both the etics and the emics by identifying and analyzing behaviors at the universal, cultural, and personal levels (Earley & Ang, 2003; Livermore, 2010).

The cognitive dimension, CQ Knowledge, "refers to the leader's knowledge about culture and its role in shaping how business is done" (Livermore, 2010, p. 26). Within the assessment of the cognitive area of CQ Knowledge, much attention is given to significant cultural systems (economic, family, legal, educational, religious, and artistic)

and cultural value orientations, which are expanded from the foundational work of Hofstede (2001). The CQ framework highlights 10 value orientation continuums that individuals with high CQ Knowledge will consider: individualism/collectivism, high/low power distance, high/low uncertainty avoidance, competitive/cooperative, short-term/long-term, high/low context, being/doing, universalism/particularism, neutral/affective, and monochromic/polychromic time (Livermore, 2015). These frameworks provide a general cultural understanding. The expectation is not that the individual knows every fact about every other culture, but that those with high CQ will know the types of questions to ask and information to gather related to the systems and values of another culture. These general domains provide a foundation for increased culture-specific learning that leads to more effective language, business, and leadership skills in an intercultural context (Ang & Van Dyne, 2008a; Earley & Ang, 2003; Livermore, 2015).

The metacognitive dimension, referred to as CQ Strategy, is the link between cognitive knowledge and behavior. CQ Strategy is the way one thinks about and processes what is understood so that knowledge gained is applied to action in a way that changes one's behavior. A specific fact might exist in one's brain or a behavior might exist in one's behavioral repertoire, but it is this element of strategy that enables one to apply the knowledge to produce the appropriate behavior at the correct time and in the right context. This requires the capabilities of awareness of oneself and one's surroundings, intentional planning to act based on what is understood, and checking to

discern if what is understood is correct and the behavior is appropriate for the context (Ang & Van Dyne, 2008a; Earley & Ang, 2003; Livermore, 2015).

The behavioral dimension is CQ Action and is the visible expression of the other three dimensions of CQ. While the cognitive and motivational aspects of CQ are important, without an ability to translate the capabilities in these internal constructs into appropriate behavioral interaction within the context, successful interaction is limited. Focused attention is given to the ability to change both verbal and non-verbal actions based on the CQ strategy appropriate for the culture and context (Ang & Van Dyne, 2008a; Earley & Ang, 2003; Livermore, 2015).

Many frameworks of cultural competency focus almost entirely on the cognitive dimension (Earley & Ang, 2003). Thomas, et al. (2008) maintained that it is the metacognitive aspect of CQ, the knowledge of one's thinking about thinking and learning across cultures, that distinguishes CQ from other theories and frameworks of cultural competency. This metacognitive element integrates the other dimensions and serves as the "x-factor," which enables people to be culturally intelligent (Blasco, Feldt, & Jakobsen, 2012).

It is important to note that the dimensions of CQ are not a linear progression but more of a circular process as noted in Figure 2.2. As CQ develops, it can look more like a rising spiral than a horizontal line. Though the cycle often starts with CQ Drive, it can also begin with other dimensions. As one learns something new, he or she might plan how to interact differently in the next interaction. When that different interaction is observed to make a difference in the situation, the motivation to learn more is increased

and the cycle continues. Alternatively, one might do or say something that brings a negative response and the realization that something was not appropriate. The negative response might serve as the catalyst to want to learn what is appropriate so that response is not received again. The starting place in the cycle might vary, but the process continues and CQ develops in different cycles related to specific aspects of cultural learning within one culture or across several new cultures.

Figure 2.2. The Four Step Cycle of Cultural Intelligence

Figure 2.2. Visual representation of the cycle of the four dimensions of the Cultural Intelligence Model. From *Leading with Cultural Intelligence: The Real Secret to Success*, by David Livermore, 2010, p. 30.

Measurement

A key factor in the discussion of any new framework is assessment. Van Dyne, Ang, and Koh (2008) provided extensive details on the creation of the CQS. The four CQ dimensions were clearly defined and operationalized. There were 53 items in the initial draft of the CQS. These items were given to three faculty and three business professionals with cross-cultural expertise. This group assessed the items for clarity and

readability and the 10 strongest items for each dimension were included in a 40-item tool that was given to 576 Singaporean undergraduate business students. Standard deviations, extreme means, correlations, factor loading, and residuals were evaluated and weak items were removed. The result was a 20-item survey with five items for the motivational dimension, six for cognitive, four for metacognitive, and five for behavioral (Ang et al., 2007; Matsumoto & Hwang, 2013).

The 20-item survey was administered to a second, non-overlapping sample of 447 undergraduate students in Singapore. A subset of this second group (n=204) retook the same survey four months later to analyze the temporal stability of the questions. This same 20-item survey was also administered to undergraduates (n=337) in a large university in the mid-western United States to begin to test the survey cross-culturally. Following this validation, an observer version of the assessment was developed and administered to students and managers in a large MBA program at a U.S. university so that the self vs. peer evaluation could be compared. Finally, the CQS, along with other assessment scales for emotional intelligence, adjustment, and mental well-being were administered to a sample of 251 participants to measure both the discriminant and incremental validity of the scale. This scale was then assessed across samples, time, countries, and methods of self-reporting and peer-reporting. Results showed that the CQS was stable across samples, time, and countries and that it had both discriminant and incremental validity (Ang & Van Dyne, 2008b).

Matsumoto and Hwang (2013) verified both the concurrent and predictive ecological validity of the CQS in diverse samples. Confirmatory factor analysis proved

the construct validity with very diverse groups of samples in a variety of student, cultural, and professional settings. Specific educational contexts included: Singaporean undergraduate business students (Ang, Van Dyne, & Koh, 2006), American and Singaporean undergraduate students (Ang et al., 2007), and Korean undergraduate students (Moon, 2010). Each context had alphas above 0.70, with most above 0.80 (Matsumoto & Hwang, 2013).

The convergent validity of the CQS can be seen in studies that showed its correlation with personality (Ang, Van Dyne, & Koh, 2006; Ang et al., 2007; Fischer, 2011; Ward & Fischer, 2008), emotional intelligence (Ang et al., 2007; Moon, 2010), decision-making (Ang et al., 2007), leadership effectiveness (Rockstuhl, Seiler, Ang, Van Dyne, & Annen, 2011), and multi-cultural teams (Flaherty, 2008; Rockstuhl & Ng, 2008; Shokef & Erez, 2008), as well as with the Cross-Cultural Adaptability Inventory (Ang et al., 2007), and the Open-mindedness Scale (Fischer, 2011). Matsumoto and Hwang (2013) also provided evidence of the growing body of research reflecting the concurrent and predictive ecological validity of the CQS, by utilizing a diverse range of samples and more than 12 cross-cultural competencies. As a pre- and post-test measure of intercultural training effectiveness, there have been both positive (Hodges et al., 2011) and negative findings (Fischer, 2011) when CQ was used as an outcome measure for intercultural competence, so additional research is needed in this area.

There are criticisms of CQ and of the CQS. Blasco et al. (2012) questioned whether the concept of CQ adds anything to previous concepts of intercultural competence and maintained that it is conceptually very close to Hofstede's (2001)

framework of cultural differences. Most of the criticisms have been based on the works of Thomas (Thomas et al., 2008; Thomas, 2006) and the application of CQ in business. While CQ is supported as a hypothesis, Thomas (2006) expressed concern relating to the possibility of measuring CQ when most of the existing empirical examples are of cultural *un*intelligence in the form of misunderstandings and conflicts. Therefore, the concept of CQ was recognized as an ideal, but Thomas criticized it for not being accurately assessed in this framework since the lack of misunderstandings and conflicts could be attributed to other factors and motivations (Blasco, Feldt, & Jakobsen, 2012).

Some have postulated that CQ is merely a dimension of other popularized forms of intelligence such as emotional or social intelligence (Blasco, Feldt, & Jakobsen, 2012); however, as already mentioned, the expressions of these two existing constructs are specific to a single culture and do not address the added layer of cross-cultural interactions (Earley & Ang, 2003). Though criticism exists, some of the critics themselves acknowledge the uniqueness of the CQ framework, which enables one to "transcend place-specific knowledge and behaviors" (Blasco, Feldt, & Jakobsen, 2012, p. 231).

Both Leung, Ang, and Tan (2014) and Matsumoto and Hwang (2013) identified CQ as one of two intercultural competence models with the most promise in the current intercultural landscape. The CQS has been shown to be predictive of 24 different outcomes as verified by 30 different publications (Van Dyne et al., 2012).

This is an important distinction that was further evidenced by Bucker and Poutsma (2010) in their evaluation of how 23 different intercultural competency

instruments measured the seven components of the integrative Global Management Competencies (GMC) model. They found the CQS to be the most comprehensive measure of GMC components.

Cultural Intelligence in Higher Education

Between the validation of the CQS in 2003 and 2015, more than 40,000 individuals in 70 countries took the assessment (K. Waslowski - CQ Center, personal communication, April 30, 2015) and its use by businesses, organizations, and educational institutions around the world only continues to increase. In fact, the number of assessments administered as of June 2018 was over 80,000 (K. Mackie – CQ Center, personal communication, June 14, 2018)—approximately double the total in 2015. Van Dyne, Ang, and Tan (2017) reported that organizations in 98 countries were using the CQS in training, development, and employee selection. Though the number of certified CQ facilitators was not given, it can be assumed that there were also trained facilitators in most, if not all, of these countries as it is required to administer the assessment. The CQ Center reports approximately 400 higher education institutions as users currently in its system (K. Mackie – CQ Center, personal communication, June 14, 2018).

The CQS is being used by a wide variety of disciplines in higher education institutions around the world. It is most commonly applied in business programs, with documented research from business schools in multiple countries (Brancu, Munteanu, & Golet, 2016; Erez et al., 2013; Kurpis & Hunter, 2016; MacNab, Brislin, & Worthley, 2012; McCrea & Yin, 2012; Van Dyne, Ang, & Tan, 2017). There is also documented research of the use of the CQS in consumer, apparel, and retail programs (Hodges et al.,

2011), psychology courses (Buchtel, 2014), among multi-disciplinary students in Jordan (Al-Momani & Atoum, 2016) and in multiple settings with study abroad students (Hallows et al., 2011; Lokkesmoe et al., 2016; Peng et al., 2015; Tuleja, 2008, 2014).

CQ scholars emphasize that CQ is a capability or a form of intelligence that can be developed (Ang et al., 2007; Ang & Van Dyne, 2008a; Earley & Ang, 2003; Livermore, 2010; Livermore & Van Dyne, 2015). CQ began in academia and though the business world led in the application and widespread assessment in CQ, it seems that its use in education is increasing at this critical time.

Quantitative CQ Research in Higher Education

Van Dyne (Personal Communication, October 14, 2017), one of the founding CQ researchers, identified the development of CQ in university students as an "important and under-researched" topic. Van Dyne reported that most research in this area has utilized qualitative methods with small groups of study abroad students or has been correlational rather than experimental. Of the experimental and quasi-experimental groups, Van Dyne identified only a small number that utilized matched control groups (Bucker & Korzilius, 2015; Eisenberg et al., 2013; Ramsey & Lorenz, 2016). All of these studies were also in the context of international business and management education programs. Ramsey and Lorenz (2016) implemented a quasi-experimental design with a control group and the CQS as pre- and post-test measures in a Master of Business Administration (MBA) cross-cultural management course. Results showed that students' levels of CQ were positively related to their satisfaction with cross-cultural management courses.

Another study explored the effects of one particular experiential learning activity, the Ecotonos simulation game, on the CQ and self-efficacy of international business students in the Netherlands (Bucker & Korzilius, 2015). The simulation was shown to support the development of metacognitive, motivational, and behavioral CQ. Additional findings showed that the activity impacted self-efficacy, but did not impact communication effectiveness.

Eisenberg et al. (2013) took a broader approach and explored students' CQ scores before and after a cross-cultural management course in comparison to a control group not enrolled in the course. They found significantly higher post-course CQ scores, with a stronger effect on Knowledge and Stratgy scores. No change was observed in the control group. An interesting finding was that international experience was positively related to pre-course CQ scores, but was not significant for post-course CQ scores.

Another study began in the context of higher education, but the primary testing was with a professional population. Reichard et al. (2015) surveyed 85 undergraduate students from the United States who were working or studying abroad. The focus of the inquiry was to identify cultural triggers students experienced during their time abroad. The most common cultural trigger events that emerged from this inquiry were then used to develop a partial-day training that was offered to 130 employees from different organizations in the Los Angeles area. The CQS was used as a pre- and post-training measure of CQ. The training included a two-hour session focused on psychological awareness, ethnocentrism, and the results of the pre-training CQS assessment. Then participants experienced a second two-hour training that involved exposure to cultural

triggers via video and were asked to process, share, and write about their responses. Participants took the CQS again at the end of the second training and the change in results was analyzed. Though the change in CQS scores was small, it was found to be statistically significant.

Integration of Experiential Learning and Cultural Intelligence

Several studies have explored the integration of experiential learning and CQ. Earley & Peterson (2004) showed that teaching information can increase CQ Knowledge, but role-play led to greater increases in Drive, Strategy, and Action. This relationship has been explored in more recent studies as well. Li et al. (2013) highlighted experiential learning with the finding that the relationship between international experience and CQ was strongest when concrete experiences were reflected on and integrated. Erez et al. (2013) showed the impact of an ongoing experiential learning project on CQ, and MacNab (2012) illustrated the significant effects of a single experiential learning activity on CQ.

Much of the existing research on CQ and experiential learning, especially within higher education, has been conducted in the context of university business programs. MacNab et al. (2012) studied the impact of experiential learning on CQS scores in business programs at universities in the United States and Australia. An eight-week unit on CQ was included in existing business courses. The unit began with teaching on knowledge areas and awareness before requiring students to identify a context for a cross-cultural interaction activity. Following the interaction, students reflected on and wrote about their experience and sought to make application for the future. Students

shared the experiences and reflections with small groups of peers. MacNab and colleagues provided a concrete example of the integration of experiential learning theory and CQ and have written several articles on their approach to experiential CQ education. The approach they took is one way to implement experiential CQ education, and they have echoed Van Dyne (2017; et al. 2008) in calling for more experimental evaluations of CQ education (MacNab, 2012).

Erez et al. (2013) conducted a large, multi-year quasi-experimental (no control group) study of 1221 graduate students in business management programs from 17 universities in 12 countries. A collaborative, experiential learning model was utilized to develop an online multi-cultural group project that served as the intervention. The CQS, along with a secondary global identity survey, was administered pre- and post-project and the change in CQS scores was assessed. Results showed that the project did have a positive impact on CQ that was also maintained for six months post-project.

There have been a few doctoral dissertations focused on CQ in higher education. The most relevant to this research was also an exploration of experiential learning's effects on CQ, but it was focused on adult-learners in an MBA program (Harnisch, 2014). Other recent dissertations on CQ focused on the relationship of CQ, leadership style, and team performance in student leaders (Menna, 2017); business faculty understanding of CQ and the impact of this on their teaching practice (Awad, 2016); and the role of short-term missions in developing CQ in university students (Haygood, 2016).

An earlier study by Rehg, Gundlach, and Grigorian (2012) utilized a quasi-experimental design and also found that CQ Knowledge and Action could be increased

with training. There was no control group in this study and it was conducted among government employees and not in a umiversity context. However, it is one of the small number of quantitative studies available that utilized the CQS.

Review of the Literature Summary

A solid, empirical foundation was found in the literature related to the development and application of the experiential learning theory in education and cultural competence. The literature also showed a substantial research foundation for both the theory and the measurement of CQ using the CQS. Gaps in the literature were identified in the area of quantitative research utilizing the CQS in higher education, and research using a true experimental design in any sector. A small number of studies integrating experiential learning were identified, all of which called for additional empirical research in this area. The literature published in recent years primarily reflects research on CQ in international business and cross-cultural management. There is a definite need for research in cultural competency in other areas of the higher education curricula.

Contribution of this Study

White (2017) utilized experiential learning theory to explore the impact of international service experiences on faculty development. White provided a helpful visual (Figure 2.3) of the reality that rather than a flat cycle, experiential learning should be viewed as a spiral. Each cycle through the process brings a higher level of understanding as the cycle repeats.

Figure 2.3 Experiential Learning Spiral

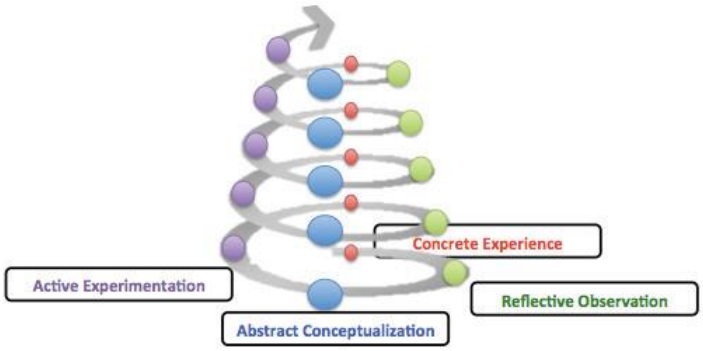

Figure 2.3. Visual representation of Kolb's experiential learning cycle as a growth spiral. From *International Service-Learning: Faculty Engagement and Transformation,* by Kristen K. White, 2017. Copyright 2017 by Kristen K. White. Reprinted with permission.

This study integrates this interpretation of experiential learning theory as a spiral, with the interpretation that CQ is also ideally applied as a spiraled cycle as discussed earlier in this chapter. The impact of experiential learning methods were compared to traditional, non-experiential teaching methods in the development of cultural competency in both classroom and enhanced study abroad settings. The experiential learning activities in this study were not limited to one activity or one project, but included multiple activities throughout the semester. Each activity was processed or debriefed to provide the reflective observation. This was referred to and tested in future classes as the students' encountered new experiential cross-cultural activities. In the same way that experiential learning is a growth spiral, the four-dimensions of the CQ model should also be visualized as a growth spiral rather than a one-time cycle. The integration of the growth spirals of these two theories were combined in this research to provide a theoretical foundation for higher education instruction in cultural competency.

CHAPTER THREE

METHODOLOGY

Introduction

This chapter provides an overview of the methods for this study. Research questions and hypotheses are identified, the methodology and design of the study are defined, and the sampling strategy is described. Specific attention is given to the procedures utilized to obtain consent and reduce the potential for researcher bias in the classroom. Data collection procedures are outlined, data storage is described, participant confidentiality is addressed, and data analysis is explained.

Research Questions

This study focused on methods of developing cultural competency in the context of higher education. Various methods of instruction were utilized and the impact of these methods was measured using the CQS as a pre- and post-course assessment of cultural competency. Three research questions guided this study.

1. Is there a statistically significant difference in cultural competency, as measured by the CQS, as a result of classroom-based instruction?
2. Is there a statistically significant differential change in cultural competency, as measured by the CQS, between traditional classroom-based teaching methodologies and classroom-based experiential learning activities?
3. Is there a statistically significant difference in cultural competency, as measured by the CQS, as a result of an enhanced study abroad?

Research Hypotheses

Based on information identified in the Literature Review, the following research hypotheses were defined.

H1. It was hypothesized that classroom-based instruction in cultural competency would lead to a statistically significant increase in end-of-course CQS scores.

H2. It was hypothesized that there would be a statistically significant differential increase in scores resulting from classroom-based experiential learning activities compared to traditional teaching methods.

H3. It was hypothesized that an enhanced study abroad semester would lead to a statistically significant increase in end-of-semester CQS scores.

Research Methodology and Design

A comparative, quasi-experimental quantitative research design with three groups was utilized in this study. Participants self-selected into one of two sections of GLST 220 Intercultural Communication and Engagement during the standard university registration process. For the purposes of this study, Group 1 was defined as GLST 220-001, scheduled from 11:15am-12:30pm on Tuesdays and Thursdays. Group 1 experienced traditional instructional methods of lecture, discussion, and multi-media analysis. Group 2 was GLST 220-002, scheduled from 2:15-3:30pm on Tuesdays and Thursdays. Instructional methodologies in Group 2 placed an emphasis on experiential learning activities. Group 2 received approximately 75% of the course content utilizing the same methods as Group 1, but group discussion, case studies, and media were often

substituted with classroom-based experiential learning activities that included simulations, games, and interactive interviews followed by reflection and debriefing. The decision to include experiential activities as approximately 25% of the intervention was based primarily on two factors. First, much of the existing research exploring experiential learning and cultural intelligence focused on the effects of one experiential learning activity on cultural intelligence. Therefore, this research intentionally incorporated more than one activity to explore experiential learning as a method rather than as an individual activity. However, since Groups 1 and 2 were different sections of the same course, the content and instruction needed to remain comparable, which prevented the incorporation of entirely different methods. Delivering 75% of the course content via the same instructional methods ensured the comparability of the sections, but provided enough potential difference through the inclusion of experiential learning activities to measure variation in the impact of these methods.

Group 3 was a much smaller group of enhanced study abroad participants that were enrolled in GLST 499 Global Studies Internship. Learning methodologies experienced by these students included cross-cultural immersion in a global context with guided journaling, weekly mentoring, 150 hours of language learning, ethnographic research, and required community service.

A quantitative analysis, including both descriptive and inferential statistics, was used to analyze the change in pre- and post-instruction CQS scores between the three groups.

While the primary inquiry was the comparison of methods for increasing cultural competency in a classroom setting between Groups 1 and 2, a secondary inquiry compared the results of Groups 1 and 2 to Group 3. All participants in Group 3 had already taken the Intercultural Communication course that was the focus of the primary inquiry. The change in pre- and post-CQS scores was the outcome of comparative interest for all groups

Participants in Groups 1 and 2 took the CQS during week two of the semester to provide an initial measure of cultural competency. Group 3 participants completed the CQS during their orientation week prior to start of the semester, but submitted their informed consent and scores after the semester began. A Baseline Survey developed by the researcher (Appendix C) was administered to participants at the beginning of week three to collect demographic information and data that was used to identify potential confounding variables. All groups completed the CQS as a post-course measure in week 15, which was the last week of the semester.

Population and Sample

The study was conducted among residential students at Liberty University in Lynchburg, VA. A non-probability, purposive sampling strategy was utilized. All students over the age of 18 who were enrolled in residential sections of GLST 220 (n=218) or GLST 499 (n=28) were eligible for participation in this study and were invited to participate.

Risks and Benefits

The risks to participants in this study were minimal and were no more than they would experience in everyday life or general class participation. Though there are potential risks of a breach of confidentiality due to lost or stolen data, even these risks are minimal due to the general topic of the study. Participants did not receive a direct benefit from taking part in this study beyond the benefits that would have come from participation in the activities already built into the course.

Benefits to society included the development of more effective methods of equipping students with the cross-cultural skills to navigate the multicultural workplaces and communities of a globalized world. Future students, employers, and society in general will be impacted by the potential increase in levels of cultural competency among university graduates receiving improved training as a result of information gathered in this study. The risks of this study were very low, so the benefits for the institution and society in the possibilities of improving cultural competency far exceeded the risks.

Sample Size and Statistical Power

The software package G*Power (Faul, Erdfelder, Lang, & Bucher, 2007) was used to conduct post hoc power analyses for the primary research question (R2). The statistical power was calculated using a sample size of 145, a power of 0.95, an alpha level of $p < .05$, and an effect size of .24 which was calculated using Pillai's Trace of .055. This showed an achieved power of 0.99 with a medium effect size (Cohen, 1992). Since this was well over the standard 0.80 the sample was sufficiently powered for this test.

Academic Interventions

Various academic interventions were utilized in this study. The official course descriptions of the relevant courses are provided in Table 3.1, along with the activities that distinguished each group. Groups 1 and 2 were enrolled in GLST 220. Group 3 was enrolled in GLST 499 and a block of courses designed for the enhanced study abroad semester. The course descriptions for all of the courses are provided in Table 3.1.

Independent Variables

The independent variables in this study were the academic interventions administered in the context of three different settings. Groups 1 and 2 were enrolled in the same course, but received slightly different classroom-based instructional activities. Group 3 was part of a block of courses designed for an enhanced study abroad experience.

Table 3.1
Course Information and Academic Intervention Overview

Course/Section#	Title	Course Description	Learning Activities
		Classroom Sections	
GLST 220-001	Intercultural Communication and Engagement	This course will take a close look at behaviors and core values of the North American culture, identify areas where these values are barriers to effective intercultural communication and explore principles for effective engagement in another culture.	Traditional Methods… *Readings *Lecture *Class/group discussions *Extensive media analysis *Case studies
GLST 220-002	Intercultural Communication and Engagement	This course will take a close look at behaviors and core values of the North American culture, identify areas where these values are barriers to effective intercultural communication and explore principles for effective engagement in another culture.	Added Experiential Methods… *Readings *Limited lecture *Class/group discussions *Some media analysis *Case studies *Campus culture scavenger hunt[1] *Cultural lecture simulation[1] *BARNGA card tournament[1] *Cultural interviews[1]
		Global Internship Semester	
GLST 499-001/002	Global Studies Internship	This course is a field experience under the supervision of a qualified individual currently working in an intercultural career. It is a required experience for Global Studies majors and is available to Global Studies minors and students in other courses of study. Students should apply through the Department of Global Studies at least two semesters prior to the internship.	*Weekly guided journal prompts *Weekly community service *Weekly supervision/cultural mentoring meetings
GLST 387	Living Abroad	This course, taken concurrently with the field internship, will teach individuals how to thrive, and not simply survive, in another culture.	Assignments covering… *Historical research *People group research *Conflict resolution analysis *Re-entry project
GLST 388	Ethnographic Research	This course is a research project that is taken concurrently with the field internship experience. Primarily building on the principles learned in GLST 290, but integrating everything learned to this point, individuals will do extensive ethnographic mapping of the culture in which they are completing the field internship.	Individualized research project *Selection of cultural topic *Formation of research question *Research design *Participant observation *Formal/informal interviews *Data analysis for emerging themes
GLST 389	Barefoot Language Learning	This course is an on-site language study that is taken concurrently with the field internship experience. Specific emphasis is given to learning the heart language of the host culture by seeking conversational aptitude.	Language Learning activities *150 hours language practice *Classroom/individual tutors *Community language practice

Note: Course descriptions from the Liberty University Undergraduate Catalog 2017-2018

[1]See Appendix B for descriptions of each experiential learning activity

Table 3.2
Groups 1 & 2 - Key Instructional Activities Comparisons

Class Date	Topic	Group 1 Activity	Group 2 Activity	Appendix
6-Mar	Exploring Liberty Culture	Small group brainstorming in class of elements of Liberty culture by identified systems. Groups shared poster lists at the end of the activity. See details in Appendix B2.	LU Culture Scavenger Hunt across campus in small groups to create a photo collage capturing elements of Liberty Culture by identified systems. The experience outside of the classroom was debriefed after the activity and each group submitted a photo collage and completed handout as part of the process. See details in Appendix B3.	B2-B3
13-Mar	CQ Drive CQ Knowledge	Clips from The Hunger Games movie were used to identify elements of CQ Drive and CQ Knowledge as reflected in the cultures of District 12 and the Capital. CQ Drive and knowledge were also discussed as related to students' experiences in coming to LU (to build on the previous activity).	Cultural Lecture simulated experiential learning activity.	B4
15-Mar	CQ All Dimensions	Analysis of movie - Divergent. Analyze and describe the culture of each faction and analyze the CQ dimensions as observed in the key characters.	Analysis of movie - Divergent. Analyze and describe the culture of each faction and analyze the CQ dimensions as observed in the key characters.	B5
10-Apr	Non-verbal Communication	Multiple video and movie clips were used to introduce various principles and examples of non-verbal communication. See details in Appendices B6-B7.	Non-verbal communication card tournament. See details in Appendix B8-B9.	B6-B9
12-Apr	Communication Principles	Lecture by a GSA with some class discussion on principles of verbal and nonverbal communication.	Lecture by two GSAs with facilitated experiential class activities for 75% of the non-verbal communication principles	B10
19-Apr	Arab Culture Case Study	The Arab Culture Block video from the Great Courses-Customs of the World video series (by David Livermore) highlighting the cultural systems and value orientations of Arab cultures.	Guided by the professor, the class interviewed a Syrian PhD student about the cultural systems and values of Arab cultures.	B11
26-Apr	Latin America Case Study	The Latin American Culture Block video from the Great Courses-Customs of the World video series (by David Livermore) highlighting the cultural systems and value orientations of the Latin American cultures.	Guided by the professor, the class interviewed a panel of 4 Latin American students from the class about the cultural systems and values of Latin American cultures.	B12

Note: See Appendix B1 for a complete schedule of course instruction for GLST 220 - Groups 1 & 2

GLST 220 Intercultural Communication and Engagement. Groups 1 and 2 were drawn from the two respective sections of GLST 220 Intercultural Communication and Engagement. Both groups were assigned the same readings, homework, papers, and tests, with approximately 75% of the classroom-based instructional methods consistent in both groups. The variability in instructional methods for Group 2 included in-class experiential learning activities with intentional reflection and debriefing times that

replaced traditional lecture, video, and discussion. See Table 3.2 for a brief overview of key instructional activities. Some experiential activities, like the BARNGA simulation (Thiagarijan, 2006), were taken from published sources, while others were developed by the researcher. There are also many other effective experiential learning activies in resources like *Building Cultural Competence: Innovative Activities and Models* (Berardo & Deardorff, 2012). Descriptions of each experiential activity, along with the debriefing questions used, are included in Appendices B1-B12. Participants in Groups 1 and 2 took the CQS in week two of the semester and again in week 15.

GLST 499 Global Studies Internship. Group 3 included participants from the required Global Studies internship semester. During the semester abroad, these participants spent a minimum of 15 weeks immersed in a cross-cultural setting where they were surrounded by a language that was unfamiliar to them. They completed 15 hours of credit, including a six-credit internship that required local community service participation and three additional three-credit courses as shown in Table 3.1. Due to the nature of this internship and the course requirements for a high level of interaction with the local community, the level of cultural immersion achieved in this internship semester was higher than a typical study abroad program and is referred to in this research as an enhanced study abroad. These participants took the CQS prior to their departure at the start of the semester and again in week 15.

Instrumentation

Several instruments were used to collect data in this study. The primary instrument utilized in this study was the internationally recognized CQS. Secondary

instruments included several surveys developed by the researcher to collect demographic information and participant perceptions of the learning process.

The Cultural Intelligence Scale (CQS)

The CQS, an internationally recognized measure of cultural competency, was the primary instrument utilized in this study. The development of this scale was described in the Literature Review and detailed psychometric properties of the CQS can be found in Van Dyne, Ang, and Koh (2008). The CQS includes 20 questions that provide scores on the four CQ dimensions and their sub-dimensions. These include Drive – Intrinsic, Extrinsic, Self-Efficacy; Knowledge – Business, Values, Linguistics, Leadership; Strategy – Planning, Awareness, Checking; and Action – Speech Acts, Verbal, Non-verbal. There is also a supplementary questionnaire that provides a range on seven cultural value orientations. Participants received a report that provided personal scores for all CQ dimensions and value orientations questions. All scores were collected via a survey, but the value orientations were not measured for change as they were merely informational and descriptive. The CQS took approximately 20 minutes to complete. Students in Groups 1 and 2 took it in week two as a pre-test and in week 15 as a post-test to measure the change in CQ scores following various instructional methods. Students in Group 3 took it before the orientation week and again in week 15 to measure the change in CQ scores. The change in CQS scores was compared across the three research groups.

Baseline Survey

Participants completed a Baseline Survey gathering demographic data and information about previous cross-cultural experience or exposure (Appendix C). This 34-

question Qualtrics survey was administered in the third week of the semester on the same day that students reported the results of the CQ assessment. Questions were grouped into the following contextual and confounding variable categories: demographics, education status, language experience, cross-cultural exposure, and travel experience.

Demographic variables. Demographic questions explored age, sex, marital status, international student status, and racial/ethnic identity. The literature reflects the challenge of asking quantitative questions about racial and/or ethnic identity, as many people identify with multiple groups and there is often a lack of clarity in the wording of the question. The format for the question on the Baseline Survey (Appendix C) regarding race/ethnicity followed the proposed wording for the 2020 United States census question which is, "Which of the following is the best description of you?" with eight answer options (Cohn, 2015).

Education status variables. Education status questions explored participants' current enrollment status, time on campus, major, minor, and previous or current courses in Global Studies, as these were potential confounding variables.

Language experience variables. Language experience was also considered a potential confounding variable. Language questions explored the number and fluency levels of languages spoken, enrollment in language courses, the number of multilingual family members, and the number of friends who speak other languages.

Cross-cultural exposure variables. Questions exploring cross-cultural exposure sought to identify how many friends and family members a participant has that are of a

different race or ethnicity, along with how often they seek ethnic diversity in their food choices.

Cross-cultural travel experience variables. Previous cross-cultural travel experiences and immersion were other potential confounding variables that were explored in the Baseline Survey. These questions explored previous travel to different ethnolinguistic cultural settings for vacation, short-term missions, or study abroad, as well as any previous experience living in a country outside of one's country of citizenship. Participants were also asked about any planned international travel during the semester, as this was recognized as a confounding variable in the context of this study.

CQ-T1 Assessment Survey

The CQ-T1 Assessment Survey (Appendix D) was a survey created by the researcher for participants to self-report their official CQS scores at the start of the semester. Participants were reminded in the survey to report the scores exactly as received in their CQ Assessment Report.

CQ-T2 Assessment Survey

The CQ-T2 Assessment Survey (Appendices E-F) was another survey created by the researcher for participants to self-report their official CQS Assessment scores in week 15 of the semester. In addition to reporting the scores, this survey asked several qualitative questions to obtain feedback from students regarding overall perceptions of the aspects of the course that were most significant. For this reason, the CQ-T2 Survey for Group 3 was slightly different than the survey for Groups 1 and 2.

Procedures

This research was conducted within existing courses at Liberty University between January 22 and May 15, 2018. Primary data came from the CQS Assessments, which were assignments already embedded in the courses. A few additional surveys to explore demographic data and confounding variables were developed specifically for this research, as previously described. The researcher applied for approval through the Institutional Review Boards (IRBs) of both Liberty University, where the researcher is a faculty member and the research was conducted, and Clemson University, where the researcher is a PhD candidate. This research met the qualifications for exempt status as defined by both IRBs as it involved the study of recognized educational methods in the context of an established educational institution. All participants were over the age of 18 and activities were very low risk to the participants.

Participant Recruitment

In week two of the semester, all students enrolled in residential sections of the Intercultural Communication and Engagement course were informed of the study and invited to participate. The general informed consent document was distributed via a Qualtrics survey (Appendix A). It was reviewed by the researcher in class and students were given time to ask questions and complete the survey during class time. Students absent from class the day the survey was reviewed received the information and the link to the Qualtrics informed consent form in an email and were asked to return it if they agreed to participate. Students who were in class when the consent form was reviewed received one follow-up email asking them to submit the consent form. Those absent

from class received an initial email and two follow up emails asking them to submit the consent form.

Students participating in the Global Studies internship semester were notified about the study during their orientation week, January 8-13, 2018, but were not given details or asked to consent to the study until final Institutional Review Board approval was given and the semester began. Since these students were already abroad, they received an email the second week of the semester with details of the study and the link to the Qualtrics consent form (Appendix A). They received two follow-up email reminders after the original email.

Students in all groups had the option to withdraw or decline further participation in the study at any point during the semester by contacting the Graduate Student Assistant (GSA) for the course.

Anonymity and Confidentiality

The Qualtrics informed consent responses were not submitted to the researcher, but were submitted directly to the Associate Administrator for the Global Studies Department. The Administrator created the participant list and assigned participant numbers for each group. He gave the GSA for each course a participant list that linked student name to participant number. The GSAs for each course emailed each student with their participant number and kept a copy of the list on their password protected computer in case any student misplaced their participant number during the duration of the research. The Administrator and GSAs, all of whom completed the Collaborative

Institutional Training Initiative (CITI) Program, had access to the participant lists but did not have access to the actual data for the study.

Each subsequent electronic Qualtrics survey also included an additional acknowledgement of consent and was submitted using the participant number rather than a name as the identifier. All other surveys and information that were part of data collection were submitted directly to the researcher via Qualtrics using only the assigned participant number. The researcher did not know who was participating in the study, nor was the researcher able to connect the data to specific participants during the course. The researcher did not have access to the list connecting participant names to participant numbers until after grades were submitted for the semester to reduce potential bias in grading. Confidentiality was maintained throughout the data collection and reporting processes. Most future publications and presentations will focus on aggregate data, but if individual data is highlighted in future reporting, pseudonyms will be used and identifiable information will not be included. No photos, videos, or interviews were part of this study.

Data Collection

All participants completed the Baseline Survey after the Informed Consent was submitted. As previously described, all participants completed the CQS as a pre-course measure within the first week of the course. These scores served as the reference point for measuring the effects of the educational interventions throughout the semester and were reported for use in the study via the CQ-T1 Assessment Survey administered in week 3 (Appendix D). Participants self-reported their CQ-T2 Assessment (post-test)

scores for use in the study in weeks 15-16 via another Qualtrics survey (See Appendices E-F). The change in scores from T1-T2 provided the critical data used to measure the effects of the educational interventions.

Data Security

During the study, the course lists of participant names and numbers were stored on the password protected computers of the course GSAs and the Associate Administrator. A report from the Qualtrics Informed Consent forms, along with a master list of participant names and numbers, was stored on a flash drive in a locked drawer in the office of the Global Studies Associate Administrator for the duration of the study. This office was staffed during business hours and remained locked after normal business hours.

The data files using only participant numbers were stored on the researcher's password protected computer and a password protected Dropbox account. After the semester ended and grades were submitted, all consent information, participant lists, and data files were backed up on a flash drive and stored in a locked drawer in the researcher's office and on a password protected Dropbox account as described above. Participant lists and data have been and will always be stored in separate physical and/or electronic locations so they cannot be connected. The researcher was an is the only one with access to the complete data set, but the researcher's data consultant and members of the researcher's dissertation committee viewed portions of the data for the purposes of assistance and advising.

Data Analysis

The data were exported from Qualtrics into the Statistical Package for the Social Sciences (SPSS) Version 24 for statistical analysis. The initial data from all surveys were combined into a data set with 99 participants in Group 1 (99% of the class), 87 participants in Group 2 (81% of the class), and 13 participants in Group 3 (46% of the class). The data were cleaned to remove incomplete cases. The final complete data set included 74 participants in Group 1, 71 participants in Group 2, and 11 participants in Group 3. The complete data set reflected a 67% participation rate for Group 1, a 66% participation rate for Group 2, and a 39% participation rate for Group 3. The complete data set was also checked for normality and outliers were removed.

Descriptive statistics, including frequencies and measures of central tendency, were used to evaluate the variables and new variables were created for use in the inferential statistical analysis that followed. Demographic variables were examined to identify significant findings from the Baseline Survey. Hypothesis 1 was tested using a paired samples t-test. Hypothesis 2 was tested using a repeated measures analysis of variance (ANOVA) comparing Groups 1 and 2. Finally, a paired samples t-test was also used to test Hypothesis 3.

Threats to Validity

Several threats to internal validity were identified, including convenience sampling and selection bias, self-reported data collection and social desirability bias, incomplete data, limited sample size, and limited statistical power.

The first identified threat to validity inherent in the research design was the convenience sample. Selection bias could be a threat as students self-selected into one of the two sections of GLST 220 based on the standard university registration process. Given that upperclassmen, honors students, and athletes receive priority registration status, and that the most conscientious students usually register first, the samples had the potential to be drawn from unrepresentative demographic samples. Section 001 filled first as it was offered at the optimal time of 9:45 am. Students registering later in the process, for whatever reason, had to take Section 002. Descriptive statistics for Groups 1 and 2 were carefully evaluated and the groups were determined to be statistically equivalent despite the nature of this convenience sample. It is important to note that there was an oversight in data collection and that grade point average (GPA) was not included in the Baseline Survey. Though it is too late to compare the GPAs for the participants, the overall grade distributions for grades earned in each class were compared. Grade percentages for each section were as follows 001/002: A=59%/62%, B=25%/19%, C=5%/9%, D=4%/2%, F=3%/3%, with a withdrawal rate of 4% for each section.

A second threat of the convenience sampling method was the different times of the two sections of GLST 220. Both sections of the Intercultural Communication course were offered in the same Tuesday/Thursday format. It was recognized that the scheduling difference of a morning section and an afternoon section could impact study outcomes. The researcher attempted to mitigate this as much as possible by requesting a late morning section and an early afternoon section so the sections were as close as possible, but ultimately this was determined by the University Registrar's office in the

course scheduling process. This was out of the control of the researcher, so there was a slight difference in the time that could have posed a threat to validity with the Group 1 class meeting 9:45-11:00 am, and the Group 2 class meeting 2:15-3:30 pm.

A third potential threat to validity was the use of self-reported data, which could have led to participants' misunderstanding items or data entry errors. In order to mitigate potential misunderstanding or confusion on the items to report, survey instructions included the relevant page numbers and clarifying information for the data to be reported from the CQ Assessment. The nature of self-reported data also opened the door for social desirability bias. It was emphasized every week in class that there was no right or wrong answer or score on the CQ Assessment, but a social desirability scale should have been included to assess this limitation.

Incomplete data must also be mentioned as a potential threat as several cases had to be excluded due to incomplete data. Though this number was fairly small, this could have affected the power of the study, especially in Group 3. While the total number of participants provided a decent sample strength, the relatively small number in Group 3 could have limited the statistical power of some calculations.

Summary of Methodology

This comparative, quasi-experimental study utilized a three-group model to explore various educational methods of increasing cultural competency among undergraduate students. Data were collected during the 2018 spring semester from participants in existing residential courses at Liberty University. Specific courses and sections were identified for this research and students in those courses who completed the

informed consent process became participants in the study. The internationally recognized CQS was administered at the beginning of the semester and the end of the semester in order to measure the change in cultural intelligence as a result of the various educational activities. Additional surveys were utilized to report these scores and to identify demographic information and potential confounding variables. Since the researcher was also the professor for the courses involved in the study, care was taken to ensure participant anonymity until grades were submitted to prevent any potential bias in grading. Following the submission of grades, the researcher obtained access to the participant list and will maintain confidentiality in data security and future reporting.

CHAPTER FOUR

RESULTS

Introduction

This study explored the effect of various instructional methods on cultural competency as measured by the CQS. A total of 156 students participated in this study. In this chapter, the results of descriptive and inferential statistical analyses are presented.

Data Analysis

Descriptive statistics were used to analyze all variables. Frequencies, means, and standard deviations were used to describe the sample and are included in Table 4.1. Key characteristics are presented below.

Table 4.1
Sample Demographic Characteristics

Characteristic	Overall		Group 1		Group 2		Group 3		Test Statistic
	f (%)	M (SD)	f (%)	M (SD)	f (%)	M (SD)	f (%)	M (SD)	
Sex									1.254
Male	50 (32.1)		21 (28.4)		26 (36.6)		3 (27.3)		
Female	106 (67.9)		53 (71.6)		45 (63.4)		8 (72.7)		
Race/Ethnicity									5.851
White	136 (87.2)		64 (86.5)		61 (85.9)		11 (100.0)		
Hispanic, Latino, or Spanish origin	6 (3.8)		4 (5.4)		2 (2.8)		0 (0.0)		
Black or African American	4 (2.6)		2 (2.7)		2 (2.8)		0 (0.0)		
Asian	2 (1.3)		0 (0.0)		2 (2.8)		0 (0.0)		
American Indian or Alaskan Native	1 (0.6)		1 (1.4)		0 (0.0)		0 (0.0)		
Other	7 (4.5)		3 (4.1)		4 (5.6)		0 (0.0)		
International Student									4.915
No	152 (97.4)		74 (100.0)		67 (94.4)		11 (100.0)		
Yes	4 (2.6)		0 (0.0)		4 (5.6)		0 (0.0)		
Age		19.4 (1.40)		19.4[a] (1.50)		19.2[a] (1.10)		21.1[b] (1.6)	9.797† ***
Marital Status									2.329
Single	152 (97.4)		73 (98.6)		69 (97.2)		10 (90.9)		
Married	4 (2.6)		1 (1.4)		2 (2.8)		1 (9.1)		

[ab]For variables with the same letter, the difference in the means is not statistically significant.
† F-test
* p < .05; ** p < .01; ***p < .001

Participant Demographics

A total of 156 students divided into three groups participated in this study. There were 74 participants in Group 1, 71 participants in Group 2, and 11 participants in Group 3. Age was the only variable screened in participant recruitment to ensure that all

participants were over the age of 18. The age range of all participants was 18-26 and age was the only demographic variable that showed a statistically significant difference between groups. The majority of participants in Group 1 (82.4%) and Group 2 (87.3%) were under the age of 21, while only 36.4% of participants in Group 3 were under age 21. The statistically significant difference in age was between Groups 1 and 3 and between Groups 2 and 3. There was no statistically significant difference between Groups 1 and 2 in age or other demographic variables (Table 4.1). There was not a statistically significant difference in the percentage of males (n=50) and females (n=106) in each group, though there was a slightly higher percentage of males in Group 2 (36.6%) compared to Group 1 (28.4%) and Group 3 (27.3%). The groups did not differ significantly in marital status or ethnicity. All four international student participants in the study were in Group 2. Since the number of international student participants was small, the fact that they were all in Group 2 was not enough to lead to a statistically significant difference between the groups.

Enrollment status was very similar between Groups 1 and 2. Fifty-eight percent (58.1%) of Group 1 participants were freshmen or sophomores, while 62% of Group 2 fell in the same category. There was not a statistically significant difference between Groups 1 and 2 (Table 4.3), but there was a statistically significant difference between these groups and Group 3 (Table 4.2), who were 100% upperclassmen.

Table 4.2
All Groups - Sample Education Characteristics

Characteristic	Overall f (%)	Group 1 f (%)	Group 2 f (%)	Group 3 f (%)	X^2
Enrollment Status					30.078***
Freshman (0-23 credits)	37 (23.7)	15 (20.3)	22 (31.0)	0 (0.0)	
Sophomore (24-47 credits)	50 (32.1)	28 (37.8)	22 (31.0)	0 (0.0)	
Junior (48-71 credits)	41 (26.3)	18 (24.3)	20 (28.2)	3 (27.3)	
Senior (72+ credits)	28 (17.9)	13 (17.6)	7 (9.9)	8 (72.7)	
Years at Liberty					57.479***
< 1 year	87 (55.8)	40 (54.1)	47 (66.2)	0 (0.0)	
1 year	11 (7.1)	5 (6.8)	6 (8.5)	0 (0.0)	
2 years	33 (21.2)	21 (28.4)	10 (14.1)	2 (18.2)	
3 years	18 (11.5)	4 (5.4)	6 (8.5)	8 (72.7)	
4 years	5 (3.2)	3 (4.1)	2 (2.8)	0 (0.0)	
> 4 years	2 (1.3)	1 (1.4)	0 (0.0)	1 (9.1)	
Major (1st)					63.538***
Currently undeclared	5 (3.2)	4 (5.4)	1 (1.4)	0 (0.0)	
Global Studies	22 (14.1)	8 (10.8)	5 (7.0)	9 (81.8)	
Interdisciplinary Studies	5 (3.2)	1 (1.4)	3 (4.2)	1 (9.1)	
Social services	36 (23.1)	19 (25.7)	16 (22.5)	1 (9.1)	
Medical	16 (10.3)	11 (14.9)	5 (7.0)	0 (0.0)	
Divinity	35 (22.4)	14 (18.9)	21 (29.6)	0 (0.0)	
Music	8 (5.1)	1 (1.4)	7 (9.9)	0 (0.0)	
Government	11 (7.1)	6 (8.1)	5 (7.0)	0 (0.0)	
Business	5 (3.2)	4 (5.4)	1 (1.4)	0 (0.0)	
Education & Languages	12 (7.7)	5 (6.8)	7 (9.9)	0 (0.0)	
Other	1 (0.6)	1 (1.4)	0 (0.0)	0 (0.0)	
Major (2nd)					29.798**
None	135 (86.5)	65 (87.8)	64 (90.1)	6 (54.5)	
Global Studies	4 (19.0)	2 (22.9)	1 (14.3)	1 (20.0)	
Interdisciplinary Studies	1 (4.8)	0 (0.0)	0 (0.0)	1 (20.0)	
Social services	7 (33.3)	2 (22.9)	4 (57.1)	1 (20.0)	
Medical	2 (9.5)	2 (22.9)	0 (0.0)	0 (0.0)	
Divinity	4 (19.0)	1 (11.1)	2 (28.6)	1 (20.0)	
Music	1 (4.8)	1 (11.1)	0 (0.0)	0 (0.0)	
Other	2 (9.5)	1 (11.1)	0 (0.0)	1 (20.0)	
Major (4 categories - 1st major)					47.876***
Global Studies	22 (14.1)	8 (10.8)	5 (7.0)	9 (81.8)	
Divinity	35 (22.4)	14 (18.9)	21 (29.6)	0 (0.0)	
Social Work	21 (13.5)	10 (13.5)	10 (14.1)	1 (9.1)	
General Education	78 (50.0)	42 (56.8)	35 (49.3)	1 (9.1)	
Major (4 categories - 2nd major)					3.358
Global Studies	4 (19.0)	2 (22.2)	1 (14.3)	1 (20.0)	
Divinity	4 (19.0)	1 (11.1)	2 (28.6)	1 (20.0)	
Social Work	3 (14.3)	1 (11.1)	2 (28.6)	0 (0.0)	
General Education	10 (47.6)	5 (55.6)	2 (28.6)	3 (60.0)	
Minor (1st)					23.399
No minor	85 (54.5)	34 (45.9)	45 (63.4)	6 (54.5)	
Global Studies	31 (43.7)	20 (50.0)	11 (42.3)	0 (0.0)	
Social services	11 (15.5)	4 (10.0)	5 (19.2)	2 (40.0)	
Medical	1 (1.4)	1 (2.5)	0 (0.0)	0 (0.0)	
Divinity	6 (8.5)	3 (7.5)	3 (11.5)	0 (0.0)	
Music	5 (7.0)	2 (5.0)	3 (11.5)	0 (0.0)	
Government	3 (4.2)	2 (5.0)	0 (0.00)	1 (20.0)	
Business	1 (1.4)	1 (2.5)	0 (0.0)	0 (0.0)	
Education & Languages	11 (15.5)	6 (15.0)	4 (15.4)	1 (20.0)	
Other	2 (2.8)	1 (2.5)	0 (0.0)	1 (20.0)	
Minor (2nd)					18.345*
No minor	147 (94.2)	71 (95.9)	67 (94.4)	9 (81.8)	
Social services	2 (22.2)	1 (33.3)	0 (0.0)	1 (50.0)	
Medical	2 (22.2)	2 (66.7)	0 (0.0)	0 (0.0)	
Divinity	2 (22.2)	0 (0.0)	1 (25.0)	1 (50.0)	
Music	1 (11.1)	0 (0.0)	1 (25.0)	0 (0.0)	
Business	2 (22.2)	0 (0.0)	2 (50.0)	0 (0.0)	
Minor (4 categories - 1st)					6.707
Global Studies	31 (43.7)	20 (50.0)	11 (42.3)	0 (0.0)	
Divinity	5 (7.0)	2 (5.0)	3 (11.5)	0 (0.0)	
General Education	35 (49.3)	18 (45.0)	12 (46.2)	5 (100.0)	
Minor (4 categories - 2nd)					1.768
Divinity	2 (22.2)	0 (0.0)	1 (25.0)	1 (50.0)	
General Education	7 (77.8)	3 (100.0)	3 (75.0)	1 (50.0)	
GLST Courses					
Previous					162.326***
0	104 (66.7)	48 (64.9)	56 (78.9)	0 (0.0)	
1	37 (23.7)	22 (29.7)	15 (21.1)	0 (0.0)	
2	4 (2.6)	4 (5.4)	0 (0.0)	0 (0.0)	
3	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	
4	3 (1.9)	0 (0.0)	0 (0.0)	3 (27.3)	
5	7 (4.5)	0 (0.0)	0 (0.0)	7 (63.6)	
6	1 (0.6)	0 (0.0)	0 (0.0)	1 (9.1)	
Current					134.012***
1	125 (80.1)	63 (85.1)	62 (87.3)	0 (0.0)	
2	17 (10.9)	10 (13.5)	7 (9.9)	0 (0.0)	
3	3 (1.9)	0 (0.0)	2 (2.8)	1 (9.1)	
4	11 (7.1)	1 (1.4)	0 (0.0)	10 (90.9)	
Required Course					4.627
No	43 (27.6)	21 (28.4)	22 (31.0)	0 (0.0)	
Yes	113 (72.4)	53 (71.6)	49 (69.0)	11 (100.0)	

* p < .05; ** p < .01; ***p < .001

Students in the Intercultural Communication course (Groups 1 and 2) were expected to represent a variety of majors. The course was required for students in 16 different majors, including global studies, social work, theology and apologetics, camping and outdoor adventure leadership, and youth ministry. It was also one of four communications electives for all students in the university; therefore, it was expected to include a much wider cross-section of students. Descriptive statistics showed that 28.4% of Group 1 participants and 31.0% of Group 2 participants took Intercultural Communication as an elective course that was not required by their declared major or minor.

Due to the extensive number of majors represented in Groups 1 and 2, new variables were created and the data were recoded into related disciplinary categories. Majors in social service and divinity programs were most prevalent, but a wide variety of degrees were represented (Table 4.2). Global studies majors were a small percentage in both groups, but global studies was the most common minor represented (Table 4.2). The Intercultural Communication and Engagement course was the first and only global studies course for a majority of participants in Group 1 (64.9%) and Group 2 (78.9%). A chi square analysis of Groups 1 and 2 showed no significant difference on demographic and educational variables (Table 4.3)

Table 4.3
Groups 1 & 2 - Sample Education Characteristics

Characteristic	Overall f (%)	Group 1 f (%)	Group 2 f (%)	X^2
Enrollment Status				3.889
Freshman (0-23 credits)	37 (25.)	15 (20.3)	22 (31.0)	
Sophomore (24-47 credits)	50 (34.5)	28 (37.8)	22 (31.0)	
Junior (48-71 credits)	38 (26.3)	18 (24.3)	20 (28.2)	
Senior (72+ credits)	20 (13.8)	13 (17.6)	7 (9.9)	
Major (4 categories - 1st major)				2.668
Global Studies	13 (9.0)	8 (10.8)	5 (7.0)	
Divinity	35 (24.1)	14 (18.9)	21 (29.6)	
Social Work	20 (13.8)	10 (13.5)	10 (14.1)	
General Education	77 (53.1)	42 (56.8)	35 (49.3)	
Major (4 categories - 2nd major)				2.068
Global Studies	3 (18.8)	2 (22.2)	1 (14.3)	
Divinity	3 (18.8)	1 (11.1)	2 (28.6)	
Social Work	3 (18.8)	1 (11.1)	2 (28.6)	
General Education	7 (43.8)	5 (55.6)	2 (28.6)	
Minor (4 categories - 1st)				1.092
Global Studies	31 (47.0)	20 (50.0)	11 (42.3)	
Divinity	5 (7.6)	2 (5.0)	3 (11.5)	
General Education	30 (45.5)	18 (45.0)	12 (46.2)	
Minor (4 categories - 2nd)				0.875
Divinity	1 (14.3)	0 (0.0)	1 (25.0)	
General Education	7 (77.8)	3 (100.0)	3 (75.0)	
GLST 220 Required Course				4.627
No	43 (27.6)	21 (28.4)	22 (31.0)	
Yes	113 (72.4)	53 (71.6)	49 (69.0)	

* $p < .05$; ** $p < .01$; ***$p < .001$

Participants in Group 3 were expected to be mostly juniors and global studies majors. Descriptive statistics verified this with 100% of participants having junior or senior enrollment status and 100% taking GLST 499 as a requirement for their major. In addition to six internship credit hours, these students were also completing three other courses: Living Abroad, Ethnographic Research, and Barefoot Language Learning. Though age, years at school, enrollment status, major, and number of GLST courses did

not show statistically significant difference between Groups 1 and 2 (Table 4.3) they did show statistically significant difference when these groups were compared to Group 3 (Table 4.2).

Research Question 1

R1. Is there a statistically significant difference in cultural competency, as measured by the CQS, as a result of classroom-based instruction?

H1. It was hypothesized that classroom-based instruction in cultural competency would lead to a statistically significant increase in end-of-course CQS scores.

A paired samples t-test was conducted to compare the overall change in CQ scores for both classroom instruction groups. There was a significant difference in the pre- (T1) and post- (T2) course CQS for all four major CQ dimensions and all but one sub-dimension (Table 4.4).

Table 4.4
CQ T1-T2 Score Differences for Group 1 and Group 2 Participants

Domain	Pre-test M (SD)	Pre-test Range	Post-test M (SD)	Post-test Range	t-stat
Drive	75.78 (12.90)	34-98	78.44 (11.74)	28-98	-2.79**
Intrinsic	78.19 (14.67)	18-98	80.36 (14.07)	18-98	-2.15*
Extrinsic	75.20 (18.82)	18-98	77.65 (19.02)	6-98	-1.56
Efficacy	74.61 (16.54)	18-98	78.29 (14.94)	3-98	-2.82**
Knowledge	44.88 (16.89)	3-87	60.66 (15.08)	20-97	-12.08***
Business	44.26 (23.04)	3-98	60.91 (23.24)	3-98	-7.94***
Values	62.39 (19.46)	3-98	78.31 (12.90)	23-98	-9.48***
Linguistics	28.64 (27.42)	3-98	36.73 (29.58)	3-98	-5.16***
Leadership	45.30 (20.94)	3-93	67.02 (16.68)	24-98	-12.95***
Strategy	70.71 (16.70)	24-98	84.71 (10.11)	45-98	-11.61***
Planning	60.28 (21.26)	3-98	77.31 (16.56)	3-98	-10.03***
Awareness	76.87 (17.73)	28-98	89.35 (9.91)	45-98	-9.25***
Checking	75.66 (17.94)	23-98	86.86 (10.30)	51-99	-8.48***
Action	61.78 (18.53)	10-98	77.60 (15.28)	8-98	-11.60***
Speech Acts	65.82 (20.04)	6-98	79.28 (16.32)	3-98	-8.66***
Verbal	59.85 (22.35)	3-98	74.15 (19.45)	18-98	-7.67***
Non-verbal	58.65 (24.64)	3-98	77.74 (19.47)	3-98	-10.73***

* p < .05; ** p < .01; ***p < .001

Overall CQ Drive scores increased slightly but significantly from pre- to post-test (T1 M = 75.78, SD = 12.90; T2 M = 78.44, SD = 11.74); t (155) = -2.79, p = .006). The other three overall dimensions all showed larger and statistically significant increases in scores: Knowledge [(T1 M = 44.88, SD = 16.89; T2 M = 60.66, SD = 15.08); t(155) = -12.08, p < .001]; Strategy [(T1 M = 70.71, SD = 16.70; T2 M = 84.71, SD = 10.11); t(155) = -11.61, p < .001]; and Action [(T1 M = 61.78, SD = 18.53; T2 M = 77.60, SD = 15.28); t(155) = -11.60, p < .001]. There was also a statistically significant increase in all of the CQ sub-dimension scores with the exception of the Extrinsic sub-dimension of CQ Drive (Table 4.4). These results showed that classroom-based instruction produced a statistically significant increase in cultural competency as measured by the CQS. H1 was supported.

Research Question 2

R2. Is there a statistically significant differential change in cultural competency, as measured by the CQS, between traditional classroom-based teaching methodologies and classroom-based experiential learning activities?

H2. It was hypothesized that there would be a statistically significant differential increase in scores resulting from classroom-based experiential learning activities compared to traditional teaching methods.

A repeated measures ANOVA was conducted to compare the change in pre-(T1) and post-(T2) CQS scores between Group 1, who received traditional classroom instruction, and Group 2, who received experiential learning activities integrated into class instruction. Descriptive statistics and chi square analysis previously reported

showed no statistical difference in the key demographic variables for Groups 1 and 2 (see Tables 4.1 and 4.3). Table 4.5 shows that of the four major CQ dimensions, only CQ Strategy showed significance in the time by group analysis.

Table 4.5
Repeated Measures ANOVA: CQ Dimensions

Variables	*df*	*F*	*p*	η_p^2
CQ Drive				
Time	1, 142	7.651	.006**	0.051
Group	1, 142	1.176	.280	0.008
Time x Group	1, 142	2.602	.109	0.018
CQ Knowledge				
Time	1, 142	151.678	.000***	0.051
Group	1, 142	0.850	.358	0.006
Time x Group	1, 142	2.802	.096	0.019
CQ Strategy				
Time	1, 142	134.048	.000***	0.486
Group	1, 142	0.925	.338	0.006
Time x Group	1, 142	7.341	.008**	0.049
CQ Action				
Time	1, 142	125.076	.000***	0.468
Group	1, 142	0.136	.713	0.001
Time x Group	1, 142	1.190	.277	0.008

* p < .05; ** p < .01; ***p < .001

There was more variation in the results for the CQ sub-dimensions. The CQ Drive Extrinsic sub-dimension did not show significance for time or group independently, but did show significance for time by group (Table 4.6) which confirms a differential change between the groups.

Table 4.6
Repeated Measures ANOVA: CQ Drive Sub-dimensions

Variables	*df*	*F*	*p*	η_p^2
CQ Drive Intrinsic				
Time	1, 141	5.567	.020*	0.038
Group	1, 141	0.589	.444	0.004
Time x Group	1, 141	0.687	.409	0.005
CQ Drive Extrinsic				
Time	1, 141	2.670	.104	0.019
Group	1, 141	0.114	.736	0.001
Time x Group	1, 141	9.024	.003**	0.060
CQ Drive Self-Efficacy				
Time	1, 141	7.963	.005**	0.053
Group	1, 141	1.592	.209	0.011
Time x Group	1, 141	0.004	.950	0.000

* p < .05; ** p < .01; ***p < .001

Table 4.7
Repeated Measures ANOVA: CQ Strategy Sub-dimensions

Variables	*df*	*F*	*p*	η_p^2
CQ Strategy Planning				
Time	1, 141	104.839	.000***	0.426
Group	1, 141	0.030	.863	0.000
Time x Group	1, 141	3.480	.064	0.024
CQ Strategy Awareness				
Time	1, 141	85.450	.000***	0.377
Group	1, 141	0.001	.979	0.000
Time x Group	1, 141	5.281	.023*	0.036
CQ Strategy Checking				
Time	1, 141	70.179	.000***	0.332
Group	1, 141	1.210	.273	0.009
Time x Group	1, 141	4.488	.036*	0.031

* p < .05; ** p < .01; ***p < .001

The CQ Strategy sub-dimensions showed variation in the analyses as well. Though Planning did not show a significant increase for time by group, both Awareness and Checking showed significance for time by group (Table 4.7). H2 was partially supported as a result of the findings for these Strategy results and the Extrinsic Drive sub-dimension, but was not completely supported for all dimensions.

Research Question 3

R3. Is there a statistically significant difference in cultural competency, as measured by the CQS, as a result of an enhanced study abroad?

H3. It was hypothesized that an enhanced study abroad semester would lead to a statistically significant increase in end-of-semester CQS scores.

A paired samples t-test was conducted to compare the overall change in CQ scores for Group 3. There was a significant difference in the pre- (T1) and post- (T2) course CQS for the overall Strategy and Action dimensions, as well as for the Action sub-dimensions of Speech Acts and Verbal (Table 4.8). There was not statistical significance in the other dimensions, but the mean scores did increase in all areas except for Intrinsic Drive. G*Power (Faul, Erdfelder, Lang, & Bucher, 2007) was used to conduct power analyses for the four main dimensions. As expected, Drive ($n=11$, $\alpha=.05$, effect size = .11, power 0.096) and Knowledge ($n=11$, $\alpha=.05$, effect size = .38, power 0.43) were not sufficiently powered, but Strategy ($n=11$, $\alpha=.05$, effect size = .92, power 0.98), and Action ($n=11$, $\alpha=.05$, effect size = 1.01, power 0.92) both showed strong power. H3 was partially supported.

Table 4.8
CQ T1-T2 Score Differences for Group 3 Participants

Domain	Pre-test M (SD)	Pre-test Range	Post-test M (SD)	Post-test Range	t-stat
Drive	81.55(11.98)	52-96	82.36 (9.35)	69-93	-.369
Intrinsic	87.36 (9.86)	62-98	85.36 (12.10)	56-98	0.882
Extrinsic	76.27 (23.07)	18-98	78.18 (19.46)	45-98	-.465
Efficacy	80.36 (15.68)	51-98	81.64 (13.29)	56-98	-.324
Knowledge	55.82 (16.79)	32-84	65.00 (14.63)	42-80	-1.452
Business	54.82 (25.15)	18-98	58.00 (24.97)	18-98	-.299
Values	73.55 (16.04)	40-98	82.45 (11.84)	67-98	-1.443
Linguistics	39.64 (25.72)	3-67	52.36 (27.76)	3-98	-1.747
Leadership	55.55 (21.97)	14-87	67.73 (18.31)	41-98	-1.842
Strategy	80.73 (13.45)	49-98	87.82 (10.27)	71-98	-3.265**
Planning	74.45 (16.82)	45-98	81.09 (18.98)	45-98	-1.983
Awareness	84.27 (15.21)	45-98	90.73 (9.12)	78-98	-1.656
Checking	83.45 (12.19)	56-98	90.18 (9.32)	67-98	-1.814
Action	71.18 (12.04)	54-91	83.55 (12.36)	56-95	-3.345**
Speech Acts	69.09 (13.52)	45-89	82.09 (11.77)	56-95	-3.342**
Verbal	65.64 (15.89)	51-95	82.00 (14.74)	51-98	-3.347**
Non-verbal	79.09 (12.49)	62-98	86.18 (15.22)	45-95	-1.28

* $p < .05$; ** $p < .01$; ***$p < .001$

Additional Inquiries

It was initially hypothesized that those with fewer global studies classes, less cross-cultural exposure, and less cultural experience through travel would be more impacted by learning activities. Initial analyses of these confounding variables were conducted, but results were not statistically significant. The results and discussion of this multiple regression analysis have been included in Appendix I.

Interpretation and Discussion

This section will review key findings for each of the research questions included in this study. Findings of statistical significance and noteworthy trends will be interpreted and discussed, and future applications will be identified.

Research Question 1

R1. Is there a statistically significant difference in cultural competency, as measured by the CQS, as a result of classroom-based instruction?

H1. It was hypothesized that classroom-based instruction in cultural competency would lead to a statistically significant increase in end-of-course CQS scores.

The results supported this hypothesis with a statistically significant difference in the pre- and post-course CQS for all four major CQ dimensions and all but one sub-dimension for Groups 1 and 2 combined. Of the four primary dimensions, CQ Drive had the highest pre-course mean and showed the smallest increase in pre- to post- course means. This could be attributed to the fact that students either chose a major or minor that required the Intercultural Communication and Engagement course, or that they chose the course as their general communications elective, so there was at least some level of motivation expressed in their enrollment in the course.

The overall Knowledge and Action means both reflected an increase of more than 15 points in pre- and post- course scores. This reflected a substantial amount of growth in each of these dimensions during the course. It was expected that Knowledge scores would increase the most as this dimension is the easiest to impact since there is so much culture-general and culture-specific information that can be learned. The overall Knowledge dimension showed an increase in mean scores of more than 15 points with a wide variation in the sub-dimension scores. The Linguistic sub-dimension only increased eight points, Values and Business increased 15-16 points each, but the Leadership sub-dimension increased by more than 21 points – the largest increase of any dimension or

sub-dimension. It is not surprising that the Linguistic sub-dimension showed the smallest increase of the Knowledge sub-dimensions as the intervention did not incorporate a strong focus on linguistics. The interventions did have a strong focus on Values, but the large increases in the Business and especially in the Leadership sub-dimensions were surprising.

Overall CQ Strategy, the metacognitive dimension, increased by 14 points in pre- and post- course mean scores. The Planning sub-dimension mean increased by 17, while the other sub-dimensions of Awareness and Checking saw increases of 11-12 points each. The content of the interventions did have a strong focus on intentionality in cultural interactions and the participants in Group 2 did participate in activities that required them to experience simulated situations where planning would be necessary. Both of these factors could have contributed to the larger increase in the Planning sub-dimension CQS scores.

The overall Action dimension also showed an increase of more than 15 points. The sub-dimensions of Verbal and Speech Acts increased by more than 14 points and 13 points respectively. The Non-verbal sub-dimension saw the largest increase of the Action sub-dimensions with an increase of 19 points in the mean scores. The study was not designed in a way that this can be statistically verified, but it is interesting to note the possible correlation between this increase and the fact that non-verbal communication was a topic that was specifically addressed in multiple classes throughout the semester (Appendix B1). The large increase in the Action score was not expected but was encouraging, as this data shows that it is possible to substantially and significantly

increase cultural competency as measured by the CQS in a classroom setting with a large number of students (n > 100). This has many implications for future curriculum design and course development.

Research Question 2

R2. Is there a statistically significant differential change in cultural competency, as measured by the CQS, between traditional classroom-based teaching methodologies and classroom-based experiential learning activities?

H2. It was hypothesized that there would be a statistically significant differential increase in scores resulting from classroom-based experiential learning activities compared to traditional teaching methods.

This hypothesis was partially supported. Though the data indicated that there was not a statistically significant difference in the traditional verses experiential instructional activities in the classroom setting on most of the CQ dimensions and sub-dimensions, the study did reflect statistical significance on the change in CQ Strategy scores in the experiential group compared to the traditional group. In their early writings, Fry and Kolb (1979) discussed the importance of experiential education in "fostering lifelong learning and the integration of disparate learning modes to foster individual growth and development" (p. 91). It is exactly this application of experiential learning that could explain the difference in the more significant change in Strategy scores of the experiential learning class. The four steps in the process of experiential learning are most closely related to the metacognitive dimension of CQ strategy, as one takes knowledge (or observations and reflections) and processes it to change or impact behavior in new

situations. This builds on the findings of previous research by MacNab (2012; MacNab, Brislin, & Worthley, 2012) that showed the impact of experiential CQ education on the metacognitive (strategy) dimension of CQ. Group 2 participants were exposed to simulations and experiential activities that required them to move beyond merely hearing and processing information about culture to apply what they had heard as they interacted in class. They were placed in situations where they had to use CQ Strategy rather than just hearing about CQ Strategy, which is a feasible explanation for the significant differential difference in these scores between the two groups.

While there was not statistical significance for all dimensions in the time by group analysis, there was a trend that cannot be ignored and warrants further investigation. Even though T1 scores typically were higher for Group 1 than Group 2, Group 2 had a larger increase in scores and on almost all dimensions and sub-dimensions, had T2 scores very close to Group 1. The mean T2 scores for Group 2 actually surpassed Group 1 mean scores in nine areas. Though these results may not be statistically significant this trend reflects that something noteable was happening in Group 2 that warrants further research.

These results did confirm existing research that experiential activities have more impact on the metacognitive dimensions of CQ Strategy. The results also lay a foundation for further study on the role of experiential activities in increasing CQ in general, especially since Group 2 saw slightly larger increases. The different instructional methods between Groups 1 and 2 were only approximately 25% of the overall course. Further research is needed to determine the tipping point in the amount of experiential activities needed to produce statistically significant outcomes in the Strategy

dimension, but also to explore if increased experiential activities impact the non-Strategy dimensions.

Future research employing a true experimental design is also needed. This could equate groups at baseline, control for confounding variables, and more closely examine the effects of experiential learning activities on the development of CQ.

Research Question 3

R3. Is there a statistically significant difference in cultural competency, as measured by the CQS, as a result of an enhanced study abroad?

H3. It was hypothesized that an enhanced study abroad semester would lead to a statistically significant increase in end-of-semester CQS scores.

This hypothesis was partially supported with two of the overall dimensions and two sub-dimensions showing statistically significant increases. It is unknown if the small sample size contributed to the lack of statistical significance, but it is important to note the areas that did show significance despite the possible effects of the small sample size. It is not surprising that Strategy and Action were the dimensions that showed statistically significant increases in Group 3. These participants were immersed in a new cultural context and had to translate and apply their motivation and knowledge into action to survive – which is CQ Strategy. As seen in the research and in the results of Research Question 2, experiential activity has been shown to impact this metacognitive dimension. A semester of immersion in another culture, with supervision and guided processing of cultural learning, is the highest form of experiential learning and the impact of this was evident in these results.

The data also revealed statistically significant increase in CQ Action scores of Group 3. The two Action sub-dimensions that reflected statistically significant increase were Speech Acts and Verbal – both related to language, which is a key part of the enhanced study abroad design and is a critical component of cultural immersion.

Participants in Group 3 were not just exposed to a few activities throughout the course of the semester that required them to employ the metacognitive Strategy dimension, they were completely immersed in another cultural context. This immersion required them to utilize CQ Strategy to impact their CQ Action as carried out in daily activities, language learning, relationship building, and service activities. The different levels of exposure and immersion experienced by Group 3 participants resulted in statistically significant results in these dimensions of application and action. There is a need for additional research with larger sample sizes to further explore the impacts of this type of enhanced study abroad on cultural intelligence.

Results Summary

This study showed the statistically significant impact of classroom-based instruction on the improvement of cultural competency as measured by the CQS. Post-course mean scores showed a statistically significant increase in all four major CQ dimensions and in 12 of 13 sub-dimensions due to classroom instruction in cultural competency. Participants in the classroom experiential learning group exhibited a larger increase from pre- to post- course CQS scores overall than the other two groups, but this increase was only statistically significant for the dimension of CQ Strategy. The T2 scores for Group 3 participants showed statistically significant increases in the

dimensions of Strategy and Action, particularly in the Action sub-dimensions of Speech Acts and Verbal Communication. It is believed that the small sample size of Group 3 could have contributed to limited findings of significance within this group, but this cannot be verified.

These results affirm the emerging body of research connecting the theory of experiential learning and the development of cultural intelligence. Though further experimental research in this area is needed, these results provide additional evidence that the integration of these two theories, with their respective growth spirals as outlined in Chapter 2, provide both a theoretical and a practical foundation for higher education instruction in cultural competency.

CHAPTER FIVE

SUMMARY, CONCLUSIONS, RECOMMENDATIONS

Summary of Findings

It is critical that higher education institutions address the need to equip students to excel as professionals in their fields and good neighbors in their communities in an increasingly diverse and interconnected world. The questions before these institutions now relate to what works and how this can be accomplished. This study tested three instructional methods than can be replicated and contextualized in educational institutions in a variety of ways. All of these instructional methods produced increased post-course cultural competency scores as measured by the CQS. Most of the score increases were proven to be statistically significant changes, with the exception of some dimensions in the enhanced study abroad group. Traditional teaching methodologies that presented the CQ concepts and general intercultural communication principles in a classroom setting through lecture, video, and class discussion produced significant and substantial changes in CQS scores. Teaching that same content with experiential learning activities incorporated into the classroom setting resulted in slightly larger increases in CQS scores with an additional statistically significant increase in the critical metacognitive area of Strategy. In addition to classroom methodologies, the addition of an enhanced study abroad program following the introductory classroom-based instruction showed evidence of additional increases in CQS scores, particularly in the CQ Action dimensions, though it is possible that the small sample size may have limited the statistical significance of the results for most of the sub-dimensions in this group. Participants in the enhanced study

abroad group started with generally higher scores than the classroom-based participants as they had already taken the Intercultural Communication and Engagement course and received that classroom-based instruction. In most dimensions these study abroad participants ended with the highest scores of all the groups, with notable statistically significant increases in the Strategy and Action dimensions. Though this study did not provide a longitudinal view of the same sample over multiple methods of instruction, it did provide enough evidence to hypothesize that in future longitudinal studies of the same participants, the development of cultural competency can be maximized by a layered approach of experiential classroom-based instruction followed by a substantial period of guided cultural immersion.

This layered effect of first-level classroom-based instruction, ideally with experiential learning activities, followed by guided cultural immersion is reflective of White's (2017) spiral adaptation of Kolb's experiential learning theory presented in Chapter 2. This cycle of experiential learning theory provided a framework that integrated the teaching and learning process through active participation of the learner (Fry & Kolb, 1979). For the enhanced study abroad participants in this research, the stage of active experimentation was reached both during and after classroom-based learning when the extended period of cultural immersion provided hourly and daily opportunities for the learning cycle to continue. In the enhanced study abroad setting, new concrete experiences were encountered on a daily basis and were followed by the reflective observations of guided journaling and weekly supervision, which led to abstract conceptualizations that informed future concrete experiences. This cycle was not only

completed, but continued as an upward spiral was built with each new cross-cultural experience, reflection, and conceptualization. In the same way, the cultural intelligence cycle discussed in Chapter 2, was not only completed during the enhanced study abroad, but also continued in an upward spiral of drive, knowledge, strategy, and action. Ideally, each movement through this cycle contributes to this upward spiral of additional drive, increased knowledge, more intentional strategy, and a higher capability to function effectively across cultures.

Though these findings related to the enhanced study abroad were encouraging, the motivation behind this study was the recognition that the need to equip a majority of students in cultural competency means that it cannot be limited to a study abroad methodology. With that in mind, the other results of this study were even more encouraging because they showed that classroom-based instruction, even in large classes ($n > 100$), can have a significant impact on cultural competency. Not only did the data show statistically significant increases for all of the dimensions and most of the sub-dimensions as a result of classroom-based instruction, it showed a statistically significant differential increase in Strategy scores for Group 2 when compared to Group 1. These results showed that it is possible to begin this spiral growth cycle implementing CQ Strategy in a way that has the potential to impact Action, through experiential learning methodologies in large classroom settings.

Conclusions and Implications

In light of the findings of this study, implications for policy, practice, and research will be addressed in the following sections.

Policy Implications for Higher Education

As the conversation about cultural competency outcomes continues in higher education (Glassner & Schapiro, 2018), institutions should consider policies to this end. Some institutions are developing comprehensive Quality Enhancement Plans (QEPs) that focus on various aspects of cultural competency as part of reaccreditation reviews, but campuses could also consider less comprehensive or more focused policy initiatives.

A significant policy opportunity for institutions to consider is the incorporation of some form of cultural competency into the QEP initiative that accompanies the accreditation review process. A review of the approved QEP proposals submitted to the Southern Association of Colleges and Schools Commission on Colleges by institutions who received reaccreditation between 2014 and 2016 revealed the presence of QEPs focused on cultural initiatives, but these were a small percentage of the proposals. In 2014, four of the 39 proposals focused on some area of cultural competency or global focus (SACSCOC, 2015). The proposals approved in 2015 were similar, with four of 41 focused on cultural competency or global initiatives (SACSCOC, 2016). Among the approved 2016 proposals, only one of 37 included an intercultural focus (SACSCOC, 2017). The number of institutions incorporating an intercultural or global focus might be small at this point, but this type of university policy initiative is an incredible opportunity for an institution to both prioritize and make significant progress in creating a context that could equip graduates for effectiveness in this multi-cultural world.

It was also interesting to note the presence of an experiential learning emphasis in some of the SACSCOC QEP proposals, as five proposals in 2015 (SACSCOC, 2016) and

again in 2016 (SACSCOC, 2017) related to the incorporation of more experiential learning into the curricula. Policy initiatives in both cultural competency and experiential learning could be supported by this research.

Curricular policies. Of course, the QEP is not the only type of policy initiative that can be implemented. A QEP is a comprehensive plan that often takes several years to develop and several more years to implement. There are many less formal and more immediate ways to implement institutional policies focused on the development of cultural competency. The emphasis in this study has been on impacting the cultural competence of students in instructional settings, but institutions may need to consider ways to impact the cultural competence of the faculty before implementing cultural competency initiatives in the courses. Policies introducing cultural competency development into faculty trainings and workshops may be a first step in preparing the faculty for a future policy initiative focused on adding global and/or cross-cultural elements to every course or program, which is sometimes referred to as the internationalization of the curriculum. Initial policy initiatives might include requiring cultural competency training for the faculty. Subsequent policy initiatives could be focused on specific degree programs. These policy initiatives may be centralized and dictated by the institution for all degrees or they may be the result of a policy initiative that gives each program latitude to develop cultural competency initiatives within the program that are most contextual and relevant for that particular discipline.

Policy initiatives could also require the inclusion of a course on cultural competence into the general education curriculum or the incorporation of cultural

competency training into an existing, required general education course. This policy initiative could impact a large number of students with minimal initiative and minimal faculty training, but is only the tip of the iceberg when considering policy initiatives that could benefit the students, the institution, and the world. This recommendation is included, but the struggle and debate surrounding the addition or substitution of anything new into the already packed, and admittedly contested, general education curricula at most institutions is acknowledged. This is no small task.

Study abroad policies. Other policy initiatives could be implemented in both the curricular and co-curricular areas of higher education institutions. The development of program-specific and/or general university study abroad opportunities is one way to address cultural competency on campus. Some institutions already have robust study abroad programs or opportunities and extensive offices or staff to support these programs. Those that already have this in place may consider evaluating internal degree programs and external partnerships to determine the priority that the institution places on study abroad from a policy perspective and to continue program development in these areas. Those institutions that do not already have study abroad programs might consider policy initiatives focused on the development of a study abroad office or program as a part of the policies impacting cultural competency within the institution.

Co-curricular policies. As previously stated, study abroad is an important piece of cultural competency education, but study abroad initiatives usually only impact a small number of students. Other co-curricular policy initiatives should also be seriously considered. For example, institutions could explore policies that aim to develop co-

curricular diversity programs that move beyond awareness of racial diversity issues to the development of cultural competencies that focus on equipping the campus community with the capabilities to interact with racial and cultural diversity, which are often intertwined.

Another very relevant co-curricular area for the application of cultural competency policies is in residence life. Much of the conflict experienced in residence life settings is due to cultural differences of roommates. These differences may be ethnolinguistic, national, regional, or social, but the principles of cultural intelligence are relevant in navigating all of these cultural differences and can have significant application in the realm of residence life. Policies to impact this critical area of the campus community could be considered as the residence hall community provides a powerful opportunity to equip students with the skills and a built in lab to let them practice these skills as they prepare to live in the increasingly multi-cultural neighborhoods they will encounter when they leave the boundaries of the campus.

Practice Implications for Higher Education

Pedagogy. There are many practice implications for higher education that emerge from the previously mentioned policy implications. In recent years, conversations about pedagogy in the United States have acknowledged significant changes in the way education needs to change in the face of a rapidly changing world (Elmore & McPeak, 2017). Online education has increased exponentially (United States Department of Education, 2016) and is changing the format and the methodologies utilized by many students to receive an education. The researcher regularly hears and has conversations

about flipped classrooms and the reality that higher education is no longer about providing students with information—because students' smart phones give them access to more information than they could ever consume. Education seems to be changing to focus on equipping students with the skills to select, interpret, and apply all of the information that they now can access (Elmore & McPeak, 2017; Whitaker, 2018). This is the metacognitive process, the process of thinking about what one knows and how one thinks, and then determining what to do with that information and how to apply that information appropriately. As Blasco, Feldt, & Jakobsen (2012) pointed out, it is this metacognitive element that integrates the other dimensions and serves as the "x-factor" that facilitates cultural intelligence.

As policy considerations lead to new course developments or curricular revisions, the results of this study point to practice changes that could include the incorporation of more experiential learning activities into both residential and online classrooms to emphasize and increase these metacognitive processes. These implications could have a significant impact on faculty members who are being asked to revise existing courses, develop new courses, or teach material that they do not consider themselves competent to teach. Just as the world is changing so rapidly, education and pedagogy are rapidly changing. Being an educator means being a constant learner. Educators often support this in theory, but may struggle with this in application when it requires the extra effort to prepare something new, to learn new technologies, or deliver content in different ways. It is acknowledged that there are very real challenges inherent in these implications, but it

is also maintained that these implications must be considered by individual faculty members and by institutions as higher education enters the middle of the 21st century.

Administration and finance. As with policy implications, it is important that practice implications also recognize that institutions must contextualize this information to the unique setting of their institution. Institutions must consider what is economically viable based on funding sources and fiscal health. There is great variation in the level of faculty and institutional support required for the implementation of new intercultural practices. Small universities and large universities have very different dynamics to consider. It might be a realistic practice goal for a small university that already has a robust study abroad program and several degree programs that require a semester abroad to implement a required study abroad element for all students. This could be very unrealistic for a large university without an existing study abroad infrastructure, but a large university might have financial resources for special events and activities that may not be viable for a small university.

There are many ways to answer the "how" question that can be adapted for each institution. The encouragement this research provides is that significant strides can be made toward equipping students in cultural competency, even in large classroom settings. From this foundation, each institution can adapt faculty training, classroom pedagogy, program practices, study or service abroad opportunities, and comprehensive policy initiatives to provide a layered effect to best equip students (and faculty) for the realities of the mid-21st century world.

Limitations

There were several limitations to this quasi-experimental study. First, the nature of the sample as a non-probability, purposive sample limits the generalizability and external validity of the results. Second, the sample size for Group 3 was a limitation and could have affected the significance of the results for research question 3. Third, the lack of minority representation was acknowledged and addressed throughout the study. This affects the generalizability of the results for other contexts. Fourth, this study reflected the instruction of one professor at a single university; therefore it cannot be generalized to all professors, all courses, and all universities. Fifth, the presence of confounding variables was acknowledged, but not all of these were controlled for in the study and could have impacted the results. Sixth, the study used self-reported data, but did not include the incorporation of a social desirability measure to address this limitation. Finally, this study was limited to one semester in time and did not explore the long-term impact of these changes.

Contributions to the Literature

Though there were multiple limitations in this study, it does make a contribution to the existing gaps in the literature in several areas. It provides a snapshot of findings that, though limited in scope, provide a foundation for additional research to be developed and expanded in this area. It contributes to the very limited quantitative research utilizing the CQS in higher education and to the emerging research integrating experiential learning theory with cultural intelligence. While the benefits of enhanced study abroad were observable despite the limited sample size of Group 3, the most

significant contribution of this study is the statistically significant impact of classroom instruction on cultural competency in the context of general education courses. This research provides an empirical foundation for the much broader implementation of cultural competency development beyond the small segment of students that will participate in opportunities for study or service abroad. Finally, it provides significant evidence that institutions seeking to impact the cultural competency of students can do so, even in the context of large classroom settings.

Recommendations for Future Research

As documented in the Introduction and Literature Review, much of the existing research utilizing the CQS focuses on the impact of one experiential activity or the impact of a business management curriculum with added cultural elements on CQS scores. There is a need for future research on the impact of multiple classroom-based methodologies, particularly experiential activities, on CQ scores. This research will be critical to inform both the importance of and the ideal format for the inclusion of cultural competency instruction in a broader spectrum of educational institutions and programs.

Though there is some research on the influence of culture on preferred learning style as outlined by experiential learning theory (Barmeyer, 2004; Joy & Kolb, 2009; Li, Mobley, & Kelly, 2013), there is a need for increased research on the intersections of these frameworks. This study is part of a small body of emerging research revealing a significant connection between the two theories. More research is needed to better understand the integration and interaction of these models and the subsequent implications for pedagogy in cultural competency education.

In this study, the incorporation of experiential learning activities was only 25% of the overall course for Group 2. Further study of R2 with a higher percentage of experiential learning activities is needed to see if there is a more significant differential change in pre- and post- course scores between the classroom-based groups with a higher level of experiential activities. Future research could also seek to determine the tipping point to obtain the maximum impact of experiential learning activities on the development of cultural competency in the classroom.

As documented in the Literature Review, there is a need for more quantitative research on CQ and on the impact of study abroad on CQS scores. Future research could seek to determine which elements of the enhanced study abroad model have the most effect on the change in CQ and which elements of the enhanced study abroad have the most impact on each of the CQ dimensions and sub-dimensions. There is also a need for more study abroad research that includes larger sample sizes. Study abroad programs, by nature, tend to include a comparatively small number of students. There is a need for more collaborative research across study abroad programs in order to produce studies with larger sample sizes for both quantitative and qualitative inquiry.

There is also a significant need for more experimental research that includes a true control group as comparison group for future classroom-based and study abroad research. The challenges of identifying an experimentally equivalent control group for an existing class or study abroad program are acknowledged, but this is a critical need in future cultural intelligence research.

With the increasing importance of intercultural competency on a global scale, it cannot be assumed that the instructional elements in this study would be effective with students in other cultural contexts. Therefore, in addition to recommendations already mentioned, there is also a need for continued research across national and cultural contexts. More research is needed in the form of studies that are both culturally specific in their inquiry and those that collaborate to conduct research that includes multi-national and multiethnic samples.

A specific research need raised for the program in which this research was conducted is a longitudinal study of the multi-year change in CQS scores of students who take GLST 220, layered with the enhanced study abroad experience of GLST 499. This could provide additional insight into the long-term effects and retention of cultural competency education beyond the immediate post-test. Important questions to be answered would be: How long are increases in CQ maintained following a classroom-based course? How long are increases maintained after the enhanced study abroad? These questions should also be expanded to include additional research on the stability of CQ scores across time as one's understanding and appreciation of cultural competency changes.

Conclusion

Increased training and equipping in cultural competency is not only a very relevant need in the current global context, but it is also an incredibly urgent need. One must only skim a news feed or follow the latest trending twitter posts of world leaders, national celebrities, or local politicians to see the need for increased intercultural

understanding and cross-cultural competence. Higher education institutions exist to educate and equip students to lead in various professions and contribute as citizens in increasingly diverse communities. Globalization, technology, social media, and other forces have redefined isolated local communities into an inter-connected global community. This study provides empirical evidence for institutions seeking to equip students in cultural competency that classroom-based instruction can make a statistically significant difference in the increase in cultural competency as measured by the CQS. It provides one small glimpse into a few possible methods and outcomes of instructional methodologies in this area, and adds to the growing research exploring the effects of the implementation of the CQ framework and the use of the CQS in higher education. While traditional classroom instruction can have a significant impact on cultural competency, there is evidence in the results of this study that experiential learning methods of instruction can enhance that impact, particularly in the metacognitive area. Though more research with larger samples is needed, a layered effect of classroom-based instruction followed by an enhanced study abroad experience may lead to the highest CQS scores. Though a plethora of future research inquiries have been identified, many opportunities already exist for the implementation of policies and practices within institutions of higher education to equip faculty and students to more effectively navigate and impact the increasingly interconnected, multi-cultural contexts of this 21st century world.

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APPENDICES

Appendix A

CONSENT FORM

Equipping Culturally Competent Students
Melody J. Harper
Liberty University, Global Studies Department, School of Divinity
Clemson University, International Family and Community Studies

You are invited to be in a research study exploring the development of cultural competency in students. You were selected as a possible participant because you are a residential student in GLST 220 or GLST 499. You must be at least 18 years old to participate. If you are at least 18, please read this form and ask any questions you may have before agreeing to be in the study.

Melody Harper, a doctoral candidate in the International Family and Community Studies program at Clemson University and a faculty member in the Liberty University School of Divinity is conducting this study.

Background Information: The purpose of this study is to explore the impact of various types of classroom instruction and guided global internship activities on the development cultural competency.

Procedures: If you agree to be in this study, I would ask you to do the following things:

1. Complete a Baseline Survey gathering demographic information and information about previous cross-cultural experience and exposure. This will take approximately 15-20 minutes to complete.
2. Submit your T1-CQ Assessment (pre-test) scores for use in the study. It will take approximately 5 minutes to submit the scores.
3. Participate in classroom activities and assignments for your course: GLST 220 or GLST 499. Note: Different activities and teaching methods will be utilized in each section of GLST 220. Activities and teaching methods for each section have been pre-determined and you may or may not be in the section receiving the interventions being tested. Your inclusion in the section was determined by your course section choice during the Spring 2018 registration process.
4. Complete 3 short Learning Process Surveys throughout the course. Each of these will take approximately 10-15 minutes to complete.
5. Submit your T2-CQ Assessment (post-test) scores for use in the study. It will take approximately 5 minutes to submit the scores.
6. NOTE: Time will be allotted in class for you to complete these tasks.

Risks: The risks involved in this study are minimal, which means they are equal to the risks you would encounter in everyday life and class.

Benefits: Participants should not expect to receive a direct benefit from taking part in this study beyond the benefits that would already come from participation in the activities built into the course.

Benefits to society include the development of more effective methods of equipping students with the cross-cultural skills to navigate the multicultural workplaces and communities of a globalized world. Future students, employers, and society in general will be impacted by the potential increase in levels of cultural competency among university graduates receiving improved training as a result of information gathered in this study.

Compensation: Participants will not be compensated for participating in this study.

Confidentiality: The records of this study will be kept private. In any sort of report I might publish, I will use pseudonyms and will not include any information that will make it possible to identify a participant. Participant records will be stored securely, and only I, the Graduate Student Assistants, and the Global Studies Associate Administrator will have access to the records. I will not have access to the participant list that connects names to participant numbers until after grades have been submitted for the semester. Data collected in this study will only reflect your participant number, not your name, and will be stored separately from the participant records. I may share the data I collect from you for use in future research studies or with other researchers; if I share the data that I collect about you, I will remove any information that could identify you before I share the data.

- Students who agree to participate in this study will submit this Informed Consent document via a Qualtrics survey. Upon receipt of this document, the Associate Administrator will assign you a participant number. The GSA for each course will maintain the participant number list for each course and will email each participant with their number for the study. All other surveys and information will be submitted with this participant number. To reduce potential bias in grading for the course, I will not have access to the list connecting participant names to participant numbers until after grades have been submitted for the semester.
- During the study, the course list of participant names and numbers will be stored on the password protected computer of the GSA for the course. The consent forms and a master list of participant names and numbers will be stored on a flash drive in a locked drawer in the locked office of the Global Studies Associate Administrator for the duration of the study. Neither the Associate Administrator nor the GSAs will have access to the data collected in the study. Data files, using only participant numbers, will be stored on my password protected computer and backup files will be stored on a password protected Dropbox account. After the semester is over and grades are submitted, all consent information and participant lists will be stored on an external hard drive in a locked drawer in my office and

data files will be stored in password protected electronic storage as described above.

- Data may be used in future studies and presentations, primarily as aggregate data. If individual data is highlighted, pseudonyms will be used and all identifiers will be removed to ensure participant identities remain confidential.

Voluntary Nature of the Study: Participation in this study is voluntary. Your decision to participate or not participate will not affect your grade in this course, nor will it affect current or future relations with Liberty University or the Global Studies Department. If you decide to participate, you are free to not answer any question or withdraw at any time without affecting those relationships.

How to Withdraw from the Study: If you choose to withdraw from the study, please contact the Graduate Student Assistant for the course. Should you choose to withdraw, data collected from you will be destroyed immediately and will not be included in this study.

Contacts and Questions: The researcher conducting this study is Melody Harper. You may ask any questions you have now. If you have questions later, **you are encouraged** to contact her at mharper39@liberty.edu or 434-582-2636. You may also contact the researcher's faculty advisor, Dr. Mark Small at msmall@clemson.edu.

If you have any questions or concerns regarding this study and would like to talk to someone other than the researcher, **you are encouraged** to contact the Institutional Review Board, 1971 University Blvd., Green Hall Ste. 1887, Lynchburg, VA 24515 or email at irb@liberty.edu.

Please notify the researcher if you would like a copy of this information for your records.

Statement of Consent: I have read and understood the above information. I have asked questions and have received answers. I consent to participate in the study.

The Clemson University Institutional Review Board has approved this document for use from 1/5/2018 – Approval # IRB2018-002
The Liberty University Institutional Review Board has approved this document for use from 1/8/2018 to -- Protocol # 3069.010818

_____

Signature of Participant Date

_____

Signature of Investigator Date

Appendix B1
Instructional Activity Samples

GLST 220-001/002 SPRING 2018 COMPARATIVE TEACHING SCHEDULE

DATE	**TOPIC & ASSIGNMENTS**	**CLASS ACTIVITIES**
January 23 Tuesday	**The Power of Story in Communication** Welcome to The Story	**FIRST DAY OF CLASS** Introduction and Syllabus Review 001/002 – Same instruction: Lecture & discussion about the power of story as a global form of communication
January 25 Thursday	The Story as We Know It *Communication Project #1 Due before class*	001/002 – Same instruction: Small group discussion and identification of similarities and differences in their first assignment of evaluating their understanding of the Christian gospel story. Small groups compiled answers on large post-it posters and each group presented summary to the class
January 30 Tuesday	Researching the Story Understanding the Story *Reading - McKnight: Chapters 1-3*	001/002 – Same instruction: Lecture, class discussion, and video analysis exploring how the 21st century North American culture has impacted our understanding of the gospel story
February 1 Thursday	Understanding the Story as It Was Written *Readings - McKnight: Chapters 4-5, 1 Corinthians 15, Matthew Chapters 13-21* ***Completed CQ-T1 Assessment before class***	001/002 – Same instruction: Lecture, class discussion, and video analysis exploring how the 21st century North American culture has impacted our understanding of the gospel story and comparing it back to the biblical story ****Research Project Introduction*** ****Informed Consent Review, Questions, Survey Completion***
February 6 Tuesday	Understanding the Story as It Was Written *Reading - McKnight: Chapters 6-10*	001/002 – Same instruction: Lecture, class discussion, and video analysis exploring how the 21st century North American culture has impacted our understanding of the gospel story and comparing it back to the biblical story

		Informed Consent resent to those who missed class 2/1 ***Baseline Survey completed in class***
February 8 Thursday	The Complete Story… Grand Narrative Part 1	001/002 – Same instruction: Lecture, class discussion, focused on the complete biblical narrative *Guest Speaker: C.D*
February 13 Tuesday	The Complete Story… Grand Narrative Part 2	001/002 – Same instruction: Lecture, class discussion focused on the complete biblical narrative *Guest Speaker: C.D.*
February 15 Thursday	The Impact of Culture on Story: South Asia *KJG Reflection Due*	001/002 – Same instruction: Lecture, class discussion focused on South Asian views on the biblical story *Guest Speaker: Monica*
February 20 Tuesday	The Impact of Culture on Story: North Africa	001/002 – Same instruction: Lecture, class discussion focused on North African views on the biblical story *Global Focus Week Guest Speaker: Keith*
February 22 Thursday	The Impact of Culture on Story: United Kingdom	001/002 – Same instruction: Lecture, class discussion, focused on British views on the biblical story *Global Focus Week Guest Speaker: Mike*
February 27 Tuesday	**Our Story…** Points to the Complete Story	001/002 – Same Class Activity: Discussion of how our personal stories fit into a broader global story *In class pair-share activity sharing our own personal stories, listening to others' stories*
March 1 Thursday	**The Global Story…** *Readings –* *Kwast article: Understanding Culture, 397-399* *Hesselgrave The Role of Communication in Culture, 425-429* *Livermore Serving: Pgs13-44* *Story Video Due*	001/002 – Same instruction: Lecture and discussion on the definition of culture, layers of culture, analogies of culture, and how culture affects communication. Global marketing examples.

March 6 Tuesday	Identifying Culture *To be effective in learning other cultures you have to be able to identify your own…*	Different class activities to identify Liberty culture: 001 – Small group brainstorming in class of elements of Liberty culture by identified systems. Groups shared poster lists at the end of the activity. (Appendix B1) 002 – LU Culture Scavenger Hunt across campus in small groups to create a photo collage capturing elements of Liberty Culture by identified systems. The experience outside of the classroom was debriefed after the activity and each group submitted a photo collage and completed handout as part of the process. (Appendix B2) ***CQ-T1 Assessment Survey completed in both***
March 8 Thursday	Intro to Cultural Intelligence 4 Dimensions CQ *Readings - Livermore Leading w/CQ: Preface, Acknowledgements, Chapters 1 & 2*	001/002 – Same instruction: Lecture and discussion introducing CQ
March 13 Tuesday	CQ Drive & Knowledge *Readings - Livermore Leading w/CQ: Chapter 3; Livermore Serving: Pages 45-108*	Different class activities: 001 – Lecture and class discussion of the CQ Drive and Knowledge. Clips from The Hunger Games movie were used to identify elements of CQ Drive and CQ Knowledge as reflected in the cultures of District 12 and the Capital. CQ Drive and knowledge were also discussed as related to students' experiences in coming to LU. 002 – Cultural Lecture simulated experiential learning activity. (See Appendix B3)
March 15 Thursday	CQ Knowledge	In place of class this day, all students in both sections were given the same worksheet and instructed to evaluate the movie Divergent using the CQ Framework. See (Appendix B4)
March 20-22 Tuesday Thursday	**NO CLASS – SPRING BREAK**	**NO CLASS – SPRING BREAK**

March 27 Tuesday	CQ Knowledge, Cultural Systems *Reading - Livermore Leading w/CQ: Chapter 4*	001/002 – Same instruction: Lecture and discussion on the six cultural systems identified in the CQ framework: economic, family, education, religious, legal, artistic
March 29 Thursday	CQ Knowledge, Cultural Values *Reading - Livermore Leading w/CQ: Chapter 5 Cultural Exp. Due*	001/002 – Same instruction: Lecture and discussion on the first four cultural value orientations identified in the CQ framework: individualism/collectivism, power distance, uncertainty avoidance, and cooperative/competitive.
April 3 Tuesday	CQ Knowledge, Cultural Values *Reading - Livermore Serving: Pages 109-139*	001/002 – Same instruction: Lecture and discussion on the last six cultural value orientations identified in the CQ framework: short/long term time orientation, high/low context, being/doing, universalism/particularism, neutral/affective, monochromic/polychromic time.
April 5 Thursday	CQ Strategy, CQ Action	Reading - Livermore *Leading w/CQ*: Chapter 6-7 Reading - Livermore *Serving:* Pages 141-161
April 10 Tuesday	Communicating The Story… Cultural Intelligence Reflection Due	001 – Multiple video and movie clips were used to introduce various principles and examples of non-verbal communication. See details in Appendix B5-B6 002 – BARNGA Simulation Game. See details in Appendix B7-B8
April 12 Thursday	Communication Principles Part 1 *Reading - Livermore Leading w/CQ: Chapter 8-9*	001 – Lecture by a GSA with some class discussion on principles of verbal and non-verbal communication 002 – Lecture by two GSAs with facilitated experiential class activities for 75% of the non-verbal communication principles
April 17 Tuesday	Communication Principles Part 2	001/002 – Same instruction:
April 19 Thursday	Culture & Communication Case Studies – Arab Worldviews	001 – The Arab Culture Block video from the Great Courses-Customs of the World video series (by David Livermore) highlighting the cultural systems and value orientations of Arab cultures. 002 – Guided by the professor, the class interviewed a Syrian PhD student about the cultural systems and values of Arab cultures.

April 24 Tuesday	Culture & Communication Case Studies - European & Post-Christian US Worldviews	001/002 – Same instruction: Debrief of Arab Culture Worldview Class Discussion of European and Post-Christian US Worldviews Review of Final Communication Project Instructions
April 26 Thursday	Culture & Communication Case Studies – Latin American Worldviews *Final Communication Project Due both classes*	001 – The Latin American Culture Block video from the Great Courses-Customs of the World video series (by David Livermore) highlighting the cultural systems and value orientations of the Latin American cultures. 002 – Guided by the professor, the class interviewed a panel of 4 Latin American students from the class about the cultural systems and values of Latin American cultures
May 1 Tuesday	Final Case Study EE-TAOW Video	001/002 – Same instruction: Final case study video with listening guide assignment. Class discussion followed the video and focused on the CQ and communication principles discussed in class were or were not observed.
May 3 Thursday	**Living in The Global Story** *Reading - Livermore Serving: Pages 163-177*	001/002 – Same instruction: Course/Final Test Review ***CQ-T2 Assessment Survey completed by both classes***
May 8 Tuesday	Culture & Communication Test	LAST DAY OF CLASS 001/002 – Same instruction: *Final Test*

Appendix B2
Instructional Activity Samples

GLST 220-001 EXPLORING LIBERTY CULTURE TRADITIONAL CLASS ACTIVITY

BEFORE CLASS:

1. Gather supplies: Post-it Flip Chart pads, markers
2. Determine desired group size based on class size and number of cultural aspects you want to explore. It is ok to have multiple groups for the same aspect of culture.
3. Label the appropriate number of posters with the aspect of culture - cultural system or value or aspect - to be the focus of the group.
    a. Academic (CQ Educational System)
    b. Financial (CQ Economic System)
    c. Residential (CQ Family System)
    d. Spiritual (CQ Religious System)
    e. SGA/Liberty Way (CQ Legal System)
    f. Material (partially related to CQ Artistic System)
    g. Athletic
    h. Social
    i. Commuter
    j. Schools/Depts- each School or Department has unique aspects of their own culture
4. Place the posters around the room before the start of class.

IN CLASS ACTIVITY AND DEBRIEFING:

1. Students leave their seats and choose a poster group. Make sure to give them a maximum number for each group.
2. Allow a specified amount of time for the students at that poster to discuss and list elements of that aspect of culture on the poster (usually 10 minutes).
3. Then have students move to another poster with a different aspect and a different group of people. Allow another 8-10 minutes for them to read what is already on the poster and add to it.
4. Each group selects a spokesperson who brings the poster to the front of the room. Ask students to present their responses by topic, then discuss each. Adapt the discussion time based on the available class time.
5. End the discussion time by asking the class as a whole to share something new they realized about their own campus culture through this activity.
6. Discuss how much there is to learn and how many “organizational” cultures exist on campus in addition to all of the ethnolinguistic cultures.

Appendix B3
Instructional Activity Samples

GLST 220-002 EXPLORING LIBERTY CULTURE EXPERIENTIAL ACTIVITY

BEFORE CLASS:

1. Create an activity guide for each group.
2. Determine desired group size based on class size and number of cultural aspects you want to explore. It is ok to have multiple groups for each aspect of culture.
3. Activity guides include spaces for all group member names with a heading for one of the following aspects of culture to be the focus of the group.
    a. The following questions were included on the handout.
        i. Academic (CQ Educational System)
        ii. Financial (CQ Economic System)
        iii. Residential (CQ Family System)
        iv. Spiritual (CQ Religious System)
        v. SGA/Liberty Way (CQ Legal System)
        vi. Material (partially related to CQ Artistic System)
        vii. Athletic
        viii. Social
        ix. Commuter
        x. Schools/Depts- each School or Department has unique aspects of organizational culture
    b. Activity guides included the following questions:
        i. Identify as many elements of Liberty culture in this area as you can
        ii. What layers of culture are represented in your elements (behaviors, values, beliefs, worldview)?

IN CLASS ACTIVITY AND DEBRIEFING:

1. Instruct students to form groups based of a certain size based on the size of the class (recommendation: no more than 5).
2. Give each group a handout so they can see the cultural aspect they are to explore.
3. Allow a specified amount of time for the groups to leave the classroom and go on a photo scavenger hunt around campus to take photos of as many things as they can that reflect their aspect of campus culture. Time should vary based on campus size and classroom proximity. Students in this class were given 20 minutes.
4. As students return to the classroom, have them complete the handout as a group. The handout should be submitted at the end of class.
5. Review each aspect of campus culture and have groups verbally share what they photographed related to that area.
6. Discuss new things students realized about their own campus culture.
7. Discuss how much there is to learn and how many “organizational” cultures exist on campus in addition to all of the ethnolinguistic cultures.

8. Instruct each group to create a photo collage of their pictures and submit it as a Powerpoint slide before the next class. *(Note: these slides can then be used by the professor when teaching on the various cultural systems and values in subsequent classes. This allows future instruction on the process of learning about other cultures, as well as the structure and details of other cultures, to be connected back to the process of learning about one's own culture.)*

Appendix B4
Instructional Activity Samples

GLST 220-002 EXPERIENTIAL LEARNING CULTURAL LECTURE
DETAILED TEACHING NOTES

Usually a class activity in Weeks 6-7…after students have gotten comfortable with the "normal" rules and flow of the classroom.

This activity goes well with the lecture to introduce the first two Cultural Intelligence (CQ) dimensions of CQ Drive and CQ Knowledge, but it can teach many different concepts. Teaching points can vary greatly in the way the activity is debriefed, but this is an activity that is easy to refer back to when teaching other concepts. For example, the focus of this activity was to teach the principles of CQ Drive and Knowledge, but the professors and students continued to refer back to this activity teaching CQ Strategy, CQ Action, and communication principles in subsequent classes.

1. BEFORE CLASS:
    a. At 7:30am the day of the Cultural Lecture, female students are sent an email instructing them to bring a scarf to class.
    b. Print signs for the doors in different languages.
    c. Meet with helpers (staff and senior students who speak other languages) to review the activity and their roles. Note: All the volunteers do not have to speak the same languages, in fact, the simulation is more effective if multiple languages are used. The activity intentionally includes a mix of cultures so that students with cultural experience cannot determine "the" culture and think they know the rules.

2. ARRIVAL: When students arrive at the classroom, they are not allowed to enter the class. The doors are locked and there are signs on the door in other languages that are likely to be unknown by participants. If there are two doors, one sign says "STOP! Men can enter this door when instructed." The other sign says "STOP! Women can enter this door when instructed." If there is only 1 door to the classroom, the sign says "STOP! You will be instructed when to enter."

3. ENTERING THE CLASSROOM & GREETING THE PROFESSOR: When the classroom is set and all helpers know their roles, students are allowed to enter. All instructions by those helping the professor are given in other languages. Male and female helpers open the doors and begin giving instructions as follows.
    a. MALES: Male helpers speak to the male students and instruct them to enter the classroom. When verbal instructions are not understood or followed, gestures are

used to direct the male students into the classroom. Upon entry into the classroom another male volunteer gives verbal instructions to students to remove their shoes, followed by gestures if verbal instructions are not followed. After students take their shoes off they are instructed to greet the professor.

i. The professor stands in the middle of the classroom between the rows of desks. Students are instructed to greet the professor and show respect and are motioned to approach her. The professor greets the students using the tradition Thai "wai" greeting, which is a slight bow with palms together in a prayer-like position. Students should attempt to replicate the greeting and show respect to the professor then are directed by other helpers to their seats. Males are directed to fill the front rows of the classroom. When all males are seated, the females are directed to enter. NOTE: Even in greeting students the professor does not make direct eye contact with students of the opposite gender.

b. FEMALES: While the male students are entering the classroom, female helpers are instructing the female students outside of the classroom to cover their heads with their scarves. Again, if verbal instructions are not understood, gestures are used. After all the male students have entered the room, the female helpers instruct the females with covered heads to enter, followed by those without head coverings. Female volunteers in the classroom direct female students to take off their shoes, greet the professor, and sit down. Females with covered heads fill in the rows after the males, while those without their heads covered are seated in the room.

c. Male and female helpers remain in the back of the room to guide any students arriving late.

4. BEGINNING THE CLASS: When everyone is seated, the professor moves to the front of the class. The class will be instructed to stand, and then a video of the national anthem of Thailand that honors the king of Thailand will be played. This video is a cultural practice in Thailand and is usually played at the start of every movie as a sign of respect for the king. Students are instructed to sit following the video. The professor then spends several minutes reading and looking at notes (while awkward silence usually fills the room).

5. LECTURE: When the professor is ready, the lecture begins. Students are told to put all computers and devices away and get out only a pencil or pen and paper to take notes. Typically, this activity is done on the day that the first two dimensions of Cultural Intelligence (CQ Drive and CQ Knowledge) are introduced. Powerpoint slides are used and the method of instruction includes the professor standing behind the podium and reading the slides (Note: this is very different to a normal class day when the professor moves around the room and is much more conversational, more animated, and tells a lot

of stories.) Students are instructed to copy everything on the slides word for word, with the reminder they will be tested on this information. Students are instructed to put their pencils down when they are finished copying the information. The professor is very direct, very stern, and moves on to the next slide as soon as all male students have put their pencil down.

6. ENDING THE SIMULATION: In a 75-minute class the actual lecture usually lasts 20-25 minutes. When the content has been covered and all pencils are down, the professor announces that the cultural lecture experience is over and that the female students can uncover their heads. Then the debriefing begins, usually with an audible and often simultaneous expression of lots of thoughts and emotions around the room.

7. DEBRIEFING THE SIMULATION: Debriefing is the most important part of the activity!
    a. What were your thoughts and/or feelings when you arrived at class today and it was not what you expected or what you were used to?
    b. What elements of class today were different than the normal? How did you react to those?
    c. What was it like to not understand the instructions you were given entering class?
    d. What did you observe about the cultural rules that were in effect in the classroom?
        i. Greeting the professor
        ii. Seating order
        iii. Females heads covered
        iv. Stand to honor the king
        v. Don't ask questions
        vi. No technology
        vii. Eye contact
    e. When did the professor move on to the next content?
        (When all the male students were finished writing notes).
    f. Female students – What was class like today for you? How did you feel about the realities you experienced in class today?
    g. There are many other questions and points that arise in the debriefing process, these are major points and examples.

8. TEACHING POINTS:
    a. Culture Stress/Culture Shock - Even though this is a simulation, how you reacted to this situation where you did not know the rules might give you an idea how you might respond in a real cross-cultural situation where you don't know the rules. Did you withdraw or disengage? Did you find yourself more observant? Did you decide the differences were stupid? Did you make disrespectful comments under

your breath? Did you get angry? How high was your stress level? Reflect on how you reacted today as you prepare for future cross-cultural interaction (CQ Strategy).

b. Language & Communication – Language is extremely important, but there is also a lot that can be communicated even when you don't speak or understand the language. Non-verbal communication – gestures, eye contact, facial expressions, etc. What does eye contact mean?
c. Power Distance – A cultural value orientation.
    i. Distance between students and the professor is much higher in this simulation than a normal class day. Students not permitted to question the professor, etc.
    ii. Thai WAI – the depth of the bow reflects the power distance.
    iii. Thai national anthem/respect for king.
d. Educational Systems – One of the CQ cultural systems. The style of education today was very different than our normal class with a lot of discussion, examples, videos, etc. Professor read the slides. No interaction/questions. Students expected to write and memorize. This style of education is more common in many places around the world where there is less emphasis on critical thinking and experiential learning and more info on rote memorization,
e. Realities for Women – Some of you really struggled with "unfair" rules in class today. I'm sorry about that, but there is a reality for females in many parts of the world that things are not "fair." This reality doesn't make it "right," but it is still a reality. If you are female and you are living/traveling/working in a predominantly Muslim context around the world, there will be different rules in play and you would be wise to learn about those and prepare yourself for those before you enter that context. This is not just a reality in Muslim contexts, but in other cultural contexts where gender roles and expectations are very different than in our current context.
f. What was your biggest tool in figuring out what to do and how to act in class today? OBSERVATION!!! Pay attention. When you have to step over shoes to enter a room, maybe you should take yours off. When you are greeted by someone from the culture, maybe you should try to learn and react with the appropriate greeting.
g. Observe the participants during the simulation and you may identify other teaching points for the particular group.

9. QUESTIONS? - Open it up for students to ask questions.

Appendix B5
Instructional Activity Samples

GLST 220-001/002 - DIVERGENT MOVIE - CQ ANALYSIS

Disclaimer: This assignment is not an endorsement of all of the things present in this movie. However, the movie contains 5 different factions (cultures) that we will analyze to practice identifying elements of culture. We will also analyze the 4 CQ Dimensions as we see them reflected in the movie.
Due by the start of class on Tuesday, March 27.

1. Identify the 5 official factions (cultures) and 1 unofficial faction that make up the society in this movie. List at least 3 characteristics of each.
    a. _____
        i. _____
        ii. _____
        iii. _____
    b. _____
        i. _____
        ii. _____
        iii. _____
    c. _____
        i. _____
        ii. _____
        iii. _____
    d. _____
        i. _____
        ii. _____
        iii. _____
    e. _____
        i. _____
        ii. _____
        iii. _____
    f. _____
        i. _____
        ii. _____
        iii. _____

2. Identify at least one example of each of the 4 CQ dimensions.
    a. CQ Drive
        i.

    b. CQ Knowledge
        i.

    c. CQ Strategy
        i.

    d. CQ Action
        i.

3. Why were the factions created and what was their purpose?

4. How do you see individualism valued in this alternative world?

5. How do you see collectivism valued in this alternative world?

6. Is one valued more than the other?

7. Who was identified as the most dangerous to society and why?

8. What underlying worldview values can be identified in this movie?

Appendix B6
Instructional Activity Samples

GLST 220-001 COMMUNICATION VIDEO ANALYSIS TEACHING GUIDE

BEFORE CLASS:

1. Select video or movie clips that best reflect the communication principles to be taught.
2. Prepare the Video Analysis Handout and photocopy or post for students to access.

SELECTED VIDEOS AND MOVIE CLIPS WITH TEACHING POINTS:

1. Mr. Bean – The Exam
    a. YouTube Link: https://www.youtube.com/watch?v=9LhLjpsstPY
2. The Secret Life of Walter Mitty (2013)
    a. Chapter 27: 1:18:31-1:21:45
3. Dances with Wolves (1990)
    a. 52:16-1:05:46
    b. 1:08:53-1:16:35
4. The Hundred Foot Journey (2014)
    a. 17:25-20:59

Appendix B7
Instructional Activity Samples

GLST 220-001 Communication Video Analysis Handout

Disclaimer: This assignment is not an endorsement of all of the things presented in each movie. Each clip or video merely shows an aspect of verbal or non-verbal communication and is useful for the purposes of observing communication patterns.
Due by 1:00pm on Tuesday April 10, 2018.

Identify the various types of non-verbal communication you see utilized in each video clip. If there is verbal communication, how does it reveal cultural values and/or assumptions?

1. Mr. Bean – The Exam
    a. Non-verbal
        i. _____ v. _____
        ii. _____ vi. _____
        iii. _____ vii. _____
        iv. _____ viii. _____
2. The Secret Life of Walter Mitty
    a. Non-verbal
        i. _____ v. _____
        ii. _____ vi. _____
        iii. _____ vii. _____
        iv. _____ viii. _____
3. Dances with Wolves
    a. Verbal
        i. _____
        ii. _____
    b. Non-verbal
        i. _____
        ii. _____
        iii. _____
4. Hundred Foot Journey
    a. Verbal
        i. _____
        ii. _____
    b. Non-verbal
        i. _____
        ii. _____
        iii. _____

Appendix B8
Instructional Activity Samples

GLST 220-002 BARNGA: A SIMULATION GAME ON CULTURAL CLASHES

BARNGA, a published, copyrighted simulation game (Thiagarijan, 2006) was used for this experiential activity. It facilitated participant experience in a simulated classroom setting of the reality of the confusion that can occur when it is falsely assumed or expected that everyone operates by the same rules. It allowed participants to experience, both the task and relational challenges of navigating a situation where people are playing by different rules through a simple card game tournament. There are many adaptations, applications, and teaching points that were possible in this simulation game. The simulation game was utilized as it was published with a few minor adaptations.

- Since there were over 100 students playing the game there were 18 table groups of six students. Each table group had a number 1-18
- The simulation was conducted completely non-verbally. The professor and GSA were the only people allowed to communicate verbally from the time the instructions were distributed until the debriefing began.
- The overall rules of the game were consistent, but there were nine different versions of which cards "won" the trick (two tables for each, on opposite sides of the room).
- There were three practice rounds for students to familiarize themselves with the game, then the handouts of the rules were collected. When the official card tournament began, there were two seven-minute rounds and three 5-minute rounds (as students continue to play the rounds go faster).
- At the end of each round the two students who won the most tricks in their group moved to the next (higher number) table and the two with the least tricks moved down to the next lower number table).
- The guided debriefing was similar to the published debriefing guide and focused on communication challenges, non-verbal communication skills, and the influence of worldview in shaping the different rules that individuals bring to the table. For details of the activity and the debriefing, see the book referenced above.
- Following the class debriefing discussion, students completed an individual reflection and application assignment provided in the next Appendix.

Appendix B9
Instructional Activity Samples

GLST 220-002 BARNGA: Activity Reflection

Complete these questions after the in-class activity on Tuesday, 4/10/18.
Submit on Blackboard by 4:30pm 4/10/18.

1. Describe at least 3 thoughts or feelings you had during this activity and what circumstances precipitated each.
    a.
    b.
    c.

2. What forms of non-verbal communication did you see utilized in your group during the activity?
    a.
    b.
    c.
    d.
    e.

3. What forms of non-verbal communication did YOU utilize during the activity?
    a.
    b.
    c.
    d.
    e.

4. What did you learn about communication through this activity?

5. What did you learn about yourself and the way you respond to communication challenges through this activity?

Appendix B10
Instructional Activity Samples

GLST 220-002 GSA Non-verbal Communication Lecture

Instruction in both GLST 220-001 and GLST 220-002 was led by GSAs on this day. In GLST 220-001, one GSA did traditional lecture on various non-verbal communication methods and utilized a case study framework highlighting the meaning or significance of each non-verbal communication method in three different cultural contexts. She asked some questions, but the format was not very interactive.

In GLST 220-002, two GSAs facilitated the class. The same non-verbal communication methods were presented, but the level of interaction was much higher as the GSAs interacted with each other and with the entire class. These activities would not be classified theoretically as experiential learning as there was admittedly a lower level of debriefing/application following the limited experiences, but they did require the students to engage personally in the activities and experience various emotions rather than merely hear a principle.

- Tone of voice – Discussion and examples/demonstration by the GSAs
- Facial expressions – Large and small group discussion of the following questions as a further debrief of the BARNGA simulation and application of those principles to other areas of life.
    - What facial expressions did you see utilized during the card tournament?
    - Other facial expressions commonly used?
    - When are we most unaware of our facial expressions?
    - How do we become more aware of our facial expressions?
- Eye Contact – A pair/share activity was used to demonstrate eye contact. Students were given a topic to talk discuss. One student in the pair was instructed to maintain eye contact, while the other student was to avoid eye contact and stare at the table. After five minutes, the roles were reversed, then the experience was debriefed. This experience was also connected back to the BARNGA simulation game.
    - What was it like to look at the table the whole time?
    - What was it like to try to make eye contact?
    - What does eye contact communicate in our North American context?
    - Have you experienced or observed any situations where there was a cultural disconnect in the use of eye contact?
    - How was eye contact used to communicate during the card tournament?
- Gestures – Students were challenged to reflect and continue to process and apply experiences with gestures during the BARNGA simulation activity.
    - What gestures did you see utilized during the card tournament?
    - What other gestures commonly used?

    - Are there gestures that have significantly different meanings in different cultures? After students had the opportunity to answer, the following video was shown https://www.youtube.com/watch?v=OWFPHW7BCCI
- Personal Space – Another pair/share activity was used to demonstrate the impact of personal space in non-verbal communication. Student were instructed to stand and form groups of two. They were given a topic to discuss and instructed to start the discussion. After 1 minute they were instructed to continue the discussion and take a step closer. After another 15 seconds they were instructed to take another step closer. This was repeated until most were touching. Then they were instructed to touch the arm or shoulder of their partner and maintain that contact as they continue to talk for another 10-15 seconds. Students were allowed to sit down and the experience was then debriefed with the following questions.
    - What is personal space?
    - What are practical examples of personal space?
    - How have you experienced this in different contexts?
    - How did you experience it just now?
    - At what point did you become uncomfortable in the previous exercise?
    - What is cultural and what is personal preference in regards to personal space?
    - How did you see personal space used to communicate during the card tournament?
- Touch
    - How did you feel when you were talking and your partner touched you?
    - What does touch communicate in different cultural contexts?
    - How do personal preferences affect this? (5 love languages)
    - Did you see touch used to communicate during the card tournament? How?
- Silence
    - How is silence a form of communication?
    - What does it communicate?
    - In this cultural context, when are we comfortable with silence and when are we not?
    - How was silence used in the cultural lecture? What did it communicate? How did it make you feel or what did it make you think?

Appendix B11
Instructional Activity Samples

GLST 220-002 GUIDED CLASS INTERVIEW
ARAB CULTURE BLOCK

GLST 220-001 watched a video on the cultural systems and values of the Arab culture block (Livermore D. , 2013). In place of a video, GLST 220-002 conducted a class interview, with a Syrian PhD student.

The professor had the following questions prepared to guide the interview to ensure key systems and values were addressed, but the students were encouraged to interact and ask questions related to the things that had been covered in class. The professor did not have to insert much as the students had a steady stream of questions and covered many of these areas without prompting.

a. What systems have the strongest influence on Arab culture?
b. How important is the family system?
c. How much and in what ways does the majority religion of Islam influence Arab culture?
d. Are all Arabs Muslims?
e. What were your perceptions of the United States before coming here?
f. How have you experienced prejudice and discrimination since being in the US?
g. What are you most proud of related to your culture and cultural heritage?

Debriefing questions that were discussed at the start of the next class after the interview.

a. In what ways did the interview expand your understanding of Arab cultures?
b. What did you learn about the Arab culture block that you didn't know before?
c. What surprised you most or broke some stereotypes that you had about this part of the world?
d. What informed those stereotypes?
e. How was the impact of the things you heard different since it came in the form of an in-class interview rather than a video?
f. How does our conversation with this individual inform/change the way you will seek to view and interact with people from this cultural block in the future?

Appendix B12
Instructional Activity Samples

GLST 220-002 GUIDED CLASS INTERVIEW
LATIN AMERICAN CULTURE BLOCK

GLST 220-001 watched a video on the cultural systems and values of the Latin American culture block (Livermore D. , 2013). In place of a video, GLST 220-002 conducted a class interview, with a panel of students from the class. All four students on the panel were international students from Latin America, were in the class, and agreed to be on the panel prior to the start of class.

The professor had the following questions prepared to guide the interview to ensure key systems and values were addressed, but the students were encouraged to interact and ask questions related to the things that had been covered in class. The professor did not have to insert much as the students had a steady stream of questions and covered many of these areas without prompting.

a. What systems have the strongest influence on Latin American culture?
b. How important is the family system?
c. How much and in what ways does the majority religion of Catholicism influence Latin American culture?
d. What is the difference between the terms Latino/a and Hispanic?
e. What were your perceptions of the United States before coming here?
f. How have you experienced prejudice and discrimination since being in the US?
g. What are you most proud of related to your culture and cultural heritage?

**Note: As students excited class after the interview, the professor overheard multiple student conversations regarding how impactful it was to hear from a panel of their peers rather than a video of statistics and facts or principles.

Debriefing questions that were discussed at the start of the next class after the interview.

a. In what ways did the interview expand your understanding of Latin American cultures?
b. What did you learn about the Latin American culture block that you didn't know before?
c. What surprised you most or broke some stereotypes that you had about this part of the world?
d. What informed those stereotypes?
e. How was the impact of the things you heard different since it came in the form of an in-class interview rather than a video?
f. How does our conversation with a panel of your peers inform/change the way you will seek to view and interact with people from this cultural block in the future?

Appendix C
Baseline Survey

Equipping Culturally Competent Students
Baseline Survey

When: Given to all participants during Week 3.
How: The link to the Qualtrics Baseline Survey was posted on Blackboard in each course that was part of the study. Class time was allocated for participants to access the link and complete the study using their participant number.

By completing and submitting this survey, I am once again acknowledging my consent and voluntary participation in this study on Equipping Culturally Competent Students.

Demographics

1. Participant Number (type in the number they have been given)

2. Age in years (type in age)

3. Gender
    a. Male
    b. Female

4. Marital status
    a. Single
    b. Married

5. Which of the following is the best description of you?
    a. White
    b. Hispanic, Latino, or Spanish origin
    c. Black or African American
    d. Asian
    e. American Indian or Alaskan Native
    f. Middle Eastern or North African
    g. Native Hawaiian or Other Pacific Islander
    h. Other race, ethnicity, or origin

    Note: This question format and options are based on the proposed 2020 census question for race/ethnicity. http://www.pewresearch.org/fact-tank/2015/06/18/census-considers-new-approach-to-asking-about-race-by-not-using-the-term-at-all/

Education Status

6. What is your current enrollment status by credit total?
    a. Freshman (0-23 credits)
    b. Sophomore (24-47 credits)
    c. Junior (48-71 credits)
    d. Senior (72+ credits)

7. How many years have you been attending class on campus at LU?
    a. <1 year
    b. 1 year
    c. 2 years
    d. 3 years
    e. 4 years
    f. More than 4 years

8. What is your first declared major?
    a. Currently Undeclared
    b. Global Studies
    c. Other: (Type in) _____
    d. Interdisciplinary Studies: Type in each of the cognates included in your degree. _____, _____, _____

9. What is your second declared major?
    a. Only one declared major
    b. Global Studies
    c. Other: (Type in) _____

10. What is your first minor?
    a. No minor
    b. Global Studies
    c. Other: (Type in) _____

11. What is your second minor?
    a. Only one minor
    b. Global Studies
    c. Other: (Type in) _____

12. What other Global Studies (GLST) courses have you already ***completed with at least a D***? Check all that apply.
    a. None
    b. GLST 200 – Introduction to Global Studies
    c. GLST 220 – Intercultural Communication and Engagement
    d. GLST 290 – Cultural Anthropology
    e. GLST/RLGN 350 – World Religions
    f. GLST 380 – Global Studies Practicum
    g. GLST 385 – Career Preparation for Global Workers
    h. GLST 387 – Living Abroad
    i. GLST 388 – Ethnographic Research
    j. GLST 389 – Barefoot Language Learning
    k. GLST 390 – Engaging Oral Communicators
    l. GLST 431 – Introduction to Islam
    m. GLST 485 – Engaging Tribal Cultures
    n. GLST 499 – Global Studies Internship

13. What Global Studies courses are you ***currently taking this semester***? Check all…
    a. None
    b. GLST 200 – Introduction to Global Studies
    c. GLST 220 – Intercultural Communication and Engagement
    d. GLST 290 – Cultural Anthropology
    e. GLST/RLGN 350 – World Religions
    f. GLST 380 – Global Studies Practicum
    g. GLST 385 – Career Preparation for Global Workers
    h. GLST 387 – Living Abroad
    i. GLST 388 – Ethnographic Research
    j. GLST 389 – Barefoot Language Learning
    k. GLST 390 – Engaging Oral Communicators
    l. GLST 431 – Introduction to Islam
    m. GLST 485 – Engaging Tribal Cultures
    n. GLST 499 – Global Studies Internship

14. Are you an international student?
    i. No
    ii. Yes
        1. From what country?
        2. How long have you been in the United States?
            a. <1 year
            b. 1year
            c. 2 years
            d. 3 years
            e. 4 years
            f. More than 4 years

Language

15. What is your first language?
    a. English
    b. Spanish
    c. Korean
    d. Mandarin
    e. Other _____

16. How many different languages are spoken in your immediate family?
    a. 1
    b. 2
    c. 3
    d. 4 or more
    e. List the languages _____

17. How many languages can you speak fluently?
    a. 1
    b. 2
    c. 3
    d. 4 or more
    e. List the languages _____

18. How many languages can you speak conversationally?
    a. 1
    b. 2
    c. 3
    d. 4 or more
    e. List the languages _____

19. Are you currently taking any language courses?
    a. No
    b. Yes

20. How many college level language courses have you completed?
    a. 0
    b. 1
    c. 2
    d. 3
    e. 4
    f. 5 or more

21. How many of your friends speak a different first language than you?
    a. 0
    b. 1
    c. 2-5
    d. 6-10
    e. 11-15
    f. 16-20
    g. More than 20

Cross-cultural Experiences

22. How many friends do you have who are of a different race or ethnicity than you (as defined by….)
    a. 0
    b. 1
    c. 2-5
    d. 6-10
    e. 11-15
    f. 16-20
    g. 20+

23. How many family members do you have who are of a different race or ethnicity (as defined by…)
    a. 0
    b. 1
    c. 2-5
    d. 6-10
    e. 11-15
    f. 16-20
    g. 20+

24. How often do you eat at restaurants that serve food reflecting a different culture or ethnicity than your own?
    a. Never
    b. 1-2 times per month
    c. 3-4 times a month
    d. Once a week
    e. Multiple times a week

Cross-cultural Immersion

25. Have you ever been immersed in a different ethnolinguistic cultural setting for the purpose of vacation or tourism?
    a. Experience 1 (type in name of country)
        i. less than 7 days
        ii. 8-14 days
        iii. 15-30 days
        iv. more than 30 days
    b. Experience 2 (type in name of country)
        i. less than 7 days
        ii. 8-14 days
        iii. 15-30 days
        iv. more than 30 days
    c. Experience 3 (type in name of country)
        i. less than 7 days
        ii. 8-14 days
        iii. 15-30 days
        iv. more than 30 days

26. Have you ever been immersed in a different ethnolinguistic cultural setting for the purpose of short term mission?
    a. Experience 1 (type in name of country)
        i. less than 7 days
        ii. 8-14 days
        iii. 15-30 days
        iv. 1-6 months
        v. 7-12 months
        vi. more than 1 year
    b. Experience 2 (type in name of country)
        i. less than 7 days
        ii. 8-14 days
        iii. 15-30 days
        iv. 1-6 months
        v. 7-12 months
        vi. more than 1 year
    c. Experience 3 (type in name of country)
        i. less than 7 days
        ii. 8-14 days
        iii. 15-30 days
        iv. 1-6 months
        v. 7-12 months
        vi. more than 1 year

d. Experience 4 (type in name of country)
    i. less than 7 days
    ii. 8-14 days
    iii. 15-30 days
    iv. 1-6 months
    v. 7-12 months
    vi. more than 1 year
e. Experience 5 (type in name of country)
    i. less than 7 days
    ii. 8-14 days
    iii. 15-30 days
    iv. 1-6 months
    v. 7-12 months
    vi. more than 1 year

27. Have you ever been immersed in a different ethnolinguistic cultural setting for the purpose of study abroad?
    a. Experience 1 (type in name of country)
        i. less than 1 week
        ii. 1-2 weeks
        iii. 2-4 weeks
        iv. 1-6 months
        v. 6-12 months
        vi. more than 1 year
    b. Experience 2 (type in name of country)
        i. less than 1 week
        ii. 1-2 weeks
        iii. 2-4 weeks
        iv. 1-6 months
        v. 6-12 months
        vi. more than 1 year
    c. Experience 3 (type in name of country)
        i. less than 1 week
        ii. 1-2 weeks
        iii. 2-4 weeks
        iv. 1-6 months
        v. 6-12 months
        vi. more than 1 year
    d. Experience 4 (type in name of country)
        i. less than 7 days
        ii. 8-14 days
        iii. 15-30 days
        iv. 1-6 months
        v. 7-12 months
        vi. more than 1 year

e. Experience 5 (type in name of country)
    i. less than 7 days
    ii. 8-14 days
    iii. 15-30 days
    iv. 1-6 months
    v. 7-12 months
    vi. more than 1 year

28. Have you ever lived outside of your country of citizenship?
    a. Experience 1 (type in name of country and context – military, state department, business, missions, study, other)
        i. less than 1 year
        ii. 1-2 years
        iii. 3-4 years
        iv. 5-10 years
        v. More than 10 years
    b. Experience 2 (type in name of country and context – military, state department, business, missions, study, other)
        i. less than 1 year
        ii. 1-2 years
        iii. 3-4 years
        iv. 5-10 years
        v. More than 10 years
    c. Experience 3 (type in name of country and context – military, state department, business, missions, study, other)
        i. less than 1 year
        ii. 1-2 years
        iii. 3-4 years
        iv. 5-10 years
        v. More than 10 years
    d. Experience 4 (type in name of country and context – military, state department, business, missions, study, other)
        i. less than 1 year
        ii. 1-2 years
        iii. 3-4 years
        iv. 5-10 years
        v. More than 10 years
    e. Experience 5 (type in name of country and context – military, state department, business, missions, study, other)
        i. less than 1 year
        ii. 1-2 years
        iii. 3-4 years
        iv. 5-10 years
        v. More than 10 years

29. Are you planning to travel abroad during the current semester?
    a. No
    b. Yes

30. If yes to Question 29, what is the length of your planned travel?
    a. less than 7 days
    b. 7-14 days
    c. 15-30 days
    d. 1-6 months

31. If yes to Question 29, what is the purpose of your planned travel?
    a. Vacation or tourism
    b. Short-term mission
    c. Study abroad
    d. Work
    e. Other

Appendix D

CQ-T1 Assessment (Pre-test) Scores Survey

Equipping Culturally Competent Students
CQ-T1 Assessment (Pre-test) Scores Survey

When: Given to all participants during Week 3.
How: The link to the Qualtrics T1-CQ Assessment Scores Survey was posted on Blackboard in each course that was part of the study. Class time was allocated for participants to access the link and complete the study using their participant number and the CQ Assessment Report that was a class assignment in Week 2.

By completing and submitting this survey, I am once again acknowledging my consent and voluntary participation in this study on Equipping Culturally Competent Students.

1. Enter the date you completed the T1-CQ Assessment? (If you have taken it more than once, enter the most recent date and results). MM/DD/YYYY
2. Enter the numerical score and range compared to worldwide norms for each of the following CQ dimensions and the numerical score for each of the sub-dimensions.
    a. CQ Drive – enter number, select range - Low/Moderate/High
        i. Intrinsic Interest– enter number
        ii. Extrinsic Interest – enter number
        iii. Self-efficacy – enter number
    b. CQ Knowledge – enter number, select range - Low/Moderate/High
        i. Business – enter number
        ii. Values and Norms – enter number
        iii. Socio-linguistic – enter number
        iv. Leadership – enter number
    c. CQ Strategy – enter number, select range - Low/Moderate/High
        i. Planning – enter number
        ii. Awareness – enter number
        iii. Checking – enter number
    d. CQ Action – – enter number, select range - Low/Moderate/High
        i. Speech Acts – enter number
        ii. Verbal – enter number
        iii. Non-verbal – enter number
3. Check the box for where you fall on the continuum for each value orientation listed.
    a. Individualism, Mid-range, Collectivism
    b. Low Power Distance, Mid-range, High Power Distance
    c. Low Uncertainty Avoidance, Mid-range, High Uncertainty Avoidance

d. Cooperative, Mid-range, Competitive
e. Short-term Time Orientation, Mid-range, Long-term Time Orientation
f. Low Context/Direct, Mid-range, High Context/Indirect
g. Being, Mid-range, Doing

4. Was this the first time you have taken the CQ Assessment?
    a. Yes
        i. If Yes, end of survey
    b. No
        i. If No, list the previous dates when you have taken the CQ Assessment
            1. MM/YYYY
            2. MM/YYYY
            3. MM/YYYY
        ii. If No, enter the scores from the most recent CQ Assessment report from those listed in Question 4bi.
            1. CQ Drive – enter number, select range - Low/Moderate/High
                a. Intrinsic Interest– enter number
                b. Extrinsic Interest – enter number
                c. Self-efficacy – enter number
            2. CQ Knowledge – enter number, select range - Low/Moderate/High
                a. Business – enter number
                b. Values and Norms – enter number
                c. Socio-linguistic – enter number
                d. Leadership – enter number
            3. CQ Strategy – enter number, select range - Low/Moderate/High
                a. Planning – enter number
                b. Awareness – enter number
                c. Checking – enter number
            4. CQ Action – enter number, select range - Low/Moderate/High
                a. Speech Acts – enter number
                b. Verbal – enter number
                c. Non-verbal – enter number
        iii. Was there a change in your CQ scores from the previous CQ Assessment report to your most recent CQ Assessment report?
            1. No
                a. If No, end of survey
            2. Yes
                a. If yes, please describe the 3 things you think contributed most to the change in your CQ scores between these reports
                    i. Textbox 1
                    ii. Textbox 2
                    iii. Textbox 3

[Checkbox] I affirm that I have entered these scores just as they appear on my CQ Assessment Report. I have not altered or changed my scores in any way.

Thank you for completing this survey!

Appendix E

CQ-T2 Assessment (Post-test) Scores Survey – GLST 220

Equipping Culturally Competent Students
CQ-T2 Assessment (Post-test) Scores Survey – GLST 220

When: Given to all participants during Weeks 16.
How: The link to the Qualtrics CQ-T2 Assessment Scores Survey was posted on Blackboard in each course that was part of the study. Class time was allocated for participants to access the link and complete the study using their participant number and the CQ Assessment Report that was a class assignment in Week 15.

By completing and submitting this survey, I am once again acknowledging my consent and voluntary participation in this study on Equipping Culturally Competent Students.

1. Enter the date you completed the T2-CQ Assessment? MM/DD/YYYY
2. Enter the numerical score and range compared to worldwide norms for each of the following CQ dimensions and the numerical score for each of the sub-dimensions.
    a. CQ Drive – enter number, select range - Low/Moderate/High
        i. Intrinsic Interest– enter number
        ii. Extrinsic Interest – enter number
        iii. Self-efficacy – enter number
    b. CQ Knowledge – enter number, select range - Low/Moderate/High
        i. Business – enter number
        ii. Values and Norms – enter number
        iii. Socio-linguistic – enter number
        iv. Leadership – enter number
    c. CQ Strategy – enter number, select range - Low/Moderate/High
        i. Planning – enter number
        ii. Awareness – enter number
        iii. Checking – enter number
    d. CQ Action – – enter number, select range - Low/Moderate/High
        i. Speech Acts – enter number
        ii. Verbal – enter number
        iii. Non-verbal – enter number
3. Which CQ dimension score increased the most from the T1 to the T2 Assessment? (If there was a tie, check all that had the same score).
    a. CQ Drive
    b. CQ Knowledge
    c. CQ Strategy
    d. CQ Action
    e. There was no increase in scores

4. Which sub-dimension score increased the most from the T1 to the T2 Assessment? (If there was a tie, check all that had the same score).
    a. Intrinsic Interest
    b. Extrinsic Interest
    c. Self-efficacy
    d. Business
    e. Values and Norms
    f. Socio-linguistic
    g. Leadership
    h. Planning
    i. Awareness
    j. Checking
    k. Speech Acts
    l. Verbal Communication
    m. Non-verbal Communication
5. Re-order the following items and put them in the order you think they have contributed to your understanding of Cultural Intelligence, with 1 contributing the most and 9 contributing the least. (Each option will also have a Not Applicable checkbox.)
    1. Assigned readings
    2. Class lectures/presentations
    3. Videos and media utilized in class
    4. Class discussions
    5. Experiential class activities
    6. Guest speakers
    7. Assigned cultural experiences
    8. Personal activities outside of class
    9. Other – write in option
6. Which CQ dimension score stayed the same or changed the least from the T1 to the T2 Assessment? (If there was a tie, check all that had the same score).
    a. CQ Drive
    b. CQ Knowledge
    c. CQ Strategy
    d. CQ Action
7. Which CQ dimension score decreased the most from T1 to the T2 Assessment? (If there was a tie, check all that had the same score).
    a. CQ Drive
    b. CQ Knowledge
    c. CQ Strategy
    d. CQ Action
    e. There was no decrease in scores

8. Describe the 3 things you think contributed most to the change in your CQ scores during this course.
    a. Textbox 1
    b. Textbox 2
    c. Textbox 3

[Checkbox] I affirm that I have entered these scores just as they appear on my CQ Assessment Report. I have not altered or changed my scores in any way.

Thank you for completing this survey!

Appendix F

CQ-T2 Assessment (Post-test) Scores Survey – GLST 499

Equipping Culturally Competent Students
CQ-T2 Assessment (Post-test) Scores Survey – GLST 499

When: Given to all participants during Week 16.
How: The link to the Qualtrics CQ-T2 Assessment Scores Survey was posted on Blackboard in each course that was part of the study. Participants were asked to complete this survey using their participant number and the CQ Assessment Report that was a class assignment in Week 15.

By completing and submitting this survey, I am once again acknowledging my consent and voluntary participation in this study on Equipping Culturally Competent Students.

1. Enter the date you completed the T2-CQ Assessment? MM/DD/YYYY
2. Enter the numerical score and range compared to worldwide norms for each of the following CQ dimensions and the numerical score for each of the sub-dimensions.
    a. CQ Drive – enter number, select range - Low/Moderate/High
        i. Intrinsic Interest– enter number
        ii. Extrinsic Interest – enter number
        iii. Self-efficacy – enter number
    b. CQ Knowledge – enter number, select range - Low/Moderate/High
        i. Business – enter number
        ii. Values and Norms – enter number
        iii. Socio-linguistic – enter number
        iv. Leadership – enter number
    c. CQ Strategy – enter number, select range - Low/Moderate/High
        i. Planning – enter number
        ii. Awareness – enter number
        iii. Checking – enter number
    d. CQ Action – – enter number, select range - Low/Moderate/High
        i. Speech Acts – enter number
        ii. Verbal – enter number
        iii. Non-verbal – enter number
3. Which CQ dimension score increased the most from the T1 to the T2 Assessment? (If there was a tie, check all that had the same score).
    a. CQ Drive
    b. CQ Knowledge
    c. CQ Strategy
    d. CQ Action
    e. There was no increase in scores

4. Which sub-dimension score increased the most from the T1 to the T2 Assessment? (If there was a tie, check all that had the same score).
    a. Intrinsic Interest
    b. Extrinsic Interest
    c. Self-efficacy
    d. Business
    e. Values and Norms
    f. Socio-linguistic
    g. Leadership
    h. Planning
    i. Awareness
    j. Checking
    k. Speech Acts
    l. Verbal Communication
    m. Non-verbal Communication
5. Re-order the following items and put them in the order you think they have contributed to your understanding of Cultural Intelligence, with 1 contributing the most and 9 contributing the least.
   (Each option will also have a Not Applicable checkbox.)
        1. Assigned readings
        2. Guided journaling
        3. Weekly mentoring/supervision
        4. Language Learning
        5. Ethnographic Research Project
        6. Community Service and/or Ministry Opportunities
        7. Visiting significant cultural/historical sites
        8. Local friendships/relationships
6. Which CQ dimension score stayed the same or changed the least from the T1 to the T2 Assessment? (If there was a tie, check all that had the same score).
    a. CQ Drive
    b. CQ Knowledge
    c. CQ Strategy
    d. CQ Action
7. Which CQ dimension score decreased the most from T1 to the T2 Assessment? (If there was a tie, check all that had the same score).
    a. CQ Drive
    b. CQ Knowledge
    c. CQ Strategy
    d. CQ Action
    e. There was no decrease in scores

8. Describe the 3 things you think contributed most to the change in your CQ scores during this course.
    a. Textbox 1
    b. Textbox 2
    c. Textbox 3

[Checkbox] I affirm that I have entered these scores just as they appear on my CQ Assessment Report. I have not altered or changed my scores in any way.

Thank you for completing this survey!

Appendix G

Initial Inquiry of Confounding Variables as Predictors of CQ Change

What are the most important predictors of change in pre- and post-course cultural competency scores as measured by the CQS?

It was hypothesized that those with fewer global studies classes, less cross-cultural exposure, and less cultural experience through travel would be more impacted by learning activities. No hypothesis was made about the potential confounding variables of gender or race.

Multiple regression analysis was used to test this hypothesis and assess the relationship between multiple predictors and the CQS T2 outcome scores. The regression analysis focused on the variable of group, and the created variables of total number of GLST courses, cross-cultural exposure, language experience, cross-cultural travel, and travel during the semester. These created variables were formed by grouping related variable data from the Baseline Survey.

In the overall CQ-T2 Drive scores ($r^2 = .346$), 34.6% of the variance in overall Drive was a result of the following predictors: group, language experience, cross-cultural exposure, cross-cultural travel, total GLST courses, and travel during the semester. This leaves 65.4% of the variance unexplained by the model, so it is acknowledged that there were many other predictors contributing to CQ Drive scores (Table A1). Of those identified, there were only two significant predictors of T2 Drive score: cross-cultural exposure and the T1 Drive score. Holding everything else constant, for every one unit increase in cross-cultural exposure, Drive scores would increase by .822 (B = .822, p =

.007) and for every one unit of increase in T1 score, Drive scores would increase by .431 (B = .431, p < .001).

For the CQ Drive sub-dimensions, the same predictors accounted for 41.0% (r^2 = .410) of the variance for Intrinsic, 29.3% (r^2 = .293) of the variance for Extrinsic, and 29.4% (r^2 = .294) for Self-efficacy (Table A2). For Intrinsic Drive, only the T1 score was predictive of the T2 score with every one unit increase in T1 score leading to a .564 increase (B = .564, p < .001) in T2 score. (For this, and all other discussion of predictors in this section, it is acknowledged that the discussion assumes holding everything else constant.) For Extrinsic Drive, participation in Group 2 showed every one unit of increase would lead to a 7.12 increase (B = 7.124, p = .011) in T2 score while participation in Group 3 showed every one unit of increase would lead to a 35.93 increase (B = 35.926, p = .018) in T2 score. The T1 score was also predictive for Extrinsic Drive with every unit of increase leading to a .51 increase (B = .513, p < .001) in T2 Extrinsic Drive score. The sub-dimension of Self-Efficacy data showed previous cross-cultural exposure and T1 scores were significantly predictive. Every unit of increase in cross-cultural exposure would lead to a .973 increase (B = .973, p = .016) and every unit of increase in the T1 score would lead to a .327 increase (B = .327, p < .001) in T2 Self-efficacy score.

Table A1
CQ 4 Dimension Regressions: Outcome - Time 2 CQ Score

Variables	B	Std Error	β	t-stat
Outcome: CQ Drive				
$R^2 = 0.346$				
Constant	39.545	5.184		7.628***
Experiential	1.433	1.655	0.061	0.866
Study Abroad	10.629	8.93	0.232	1.190
Total GLST Courses	-1.479	1.131	-0.251	-1.308
Exposure	0.822	0.302	0.199	2.719**
Language Experience	0.417	0.407	0.074	1.025
Travel	0.021	0.183	0.010	0.113
Current Semester Travel	1.584	2.751	0.049	0.576
Time 1 CQ Score	0.431	0.069	0.473	6.283***
Outcome: CQ Knowledge				
$R^2 = 0.305$				
Constant	37.124	4.400		8.438***
Experiential	2.317	2.185	0.077	1.060
Study Abroad	14.920	11.746	0.254	1.270
Total GLST Courses	-2.013	1.493	-0.266	-1.348
Exposure	0.864	0.405	0.163	2.135*
Language Experience	1.410	0.545	0.194	2.587*
Travel	0.022	0.242	0.008	0.090
Current Semester Travel	-2.242	3.599	-0.054	-0.623
Time 1 CQ Score	0.341	0.071	0.382	4.817***
Outcome: CQ Strategy				
$R^2 = 0.263$				
Constant	63.336	3.888		16.288***
Experiential	3.193	1.517	0.158	2.105*
Study Abroad	15.415	8.107	0.392	1.901
Total GLST Courses	-1.838	1.029	-0.362	-1.786
Exposure	0.435	0.278	0.122	1.566
Language Experience	0.147	0.373	0.030	0.394
Travel	-0.040	0.164	-0.022	-0.244
Current Semester Travel	0.127	2.485	0.005	0.051
Time 1 CQ Score	0.268	0.046	0.443	5.776***
Outcome: CQ Action				
$R^2 = 0.292$				
Constant	49.034	4.714		10.403***
Experiential	1.805	2.233	0.059	0.808
Study Abroad	17.962	12.308	0.303	1.459
Total GLST Courses	-2.094	1.572	-0.274	-1.332
Exposure	0.531	0.410	0.099	1.295
Language Experience	0.625	0.551	0.085	1.134
Travel	0.074	0.245	0.027	0.301
Current Semester Travel	-2.072	3.691	-0.049	-0.561
Time 1 CQ Score	0.402	0.064	0.487	6.304***

* p < .05; ** p < .01; ***p < .001

Table A2
CQ Drive Subdimension Regressions: Outcome - T2 CQ Score

Variables	B	Std Error	β	t-stat
Outcome: CQ Drive Sub Intrinsic				
$R^2 = 0.410$				
Constant	32.101	5.395		5.950***
Experiential	0.847	1.887	0.030	0.449
Study Abroad	5.627	10.210	0.103	0.551
Total GLST Courses	-0.968	1.298	-0.138	-0.745
Exposure	0.489	0.344	0.099	1.421
Language Experience	0.296	0.464	0.044	0.638
Travel	0.192	0.207	0.075	0.926
Current Semester Travel	-1.358	3.128	-0.035	-0.434
Time 1 CQ Score	0.564	0.069	0.588	8.181***
Outcome: CQ Drive Sub Extrinsic				
$R^2 = 0.293$				
Constant	39.331	7.005		5.615***
Experiential	7.124	2.781	0.187	2.562*
Study Abroad	35.926	14.960	0.485	2.401*
Total GLST Courses	-3.832	1.898	-0.402	-2.019*
Exposure	0.473	0.490	0.071	0.967
Language Experience	0.219	0.685	0.024	0.320
Travel	-0.546	0.304	-0.158	-1.799
Current Semester Travel	1.255	4.577	0.024	0.274
Time 1 CQ Score	0.513	0.072	0.508	7.174***
Outcome: CQ Drive Sub Self-Efficacy				
$R^2 = 0.294$				
Constant	44.302	5.713		7.755***
Experiential	-0.980	2.185	-0.033	-0.449
Study Abroad	-2.204	11.712	-0.038	-0.188
Total GLST Courses	-0.610	1.488	-0.082	-0.410
Exposure	0.973	0.401	0.185	2.427*
Language Experience	0.573	0.538	0.080	1.066
Travel	0.373	0.240	0.138	1.554
Current Semester Travel	2.965	3.652	0.072	0.812
Time 1 CQ Score	0.327	0.069	0.362	4.729***

* $p < .05$; ** $p < .01$; ***$p < .001$

In the overall CQ-T2 Knowledge scores (r^2 = .305), 30.5% of the variance in overall Knowledge was a result of the following predictors: group, language experience, cross-cultural exposure, cross-cultural travel, total GLST courses, and travel during the semester (Table A1). This leaves 69.5% of the variance unexplained by the model, so it is acknowledged that there were many other predictors contributing to CQ Knowledge scores. Of the predictors analyzed, there were three significant predictors of the T2 Knowledge score: cross-cultural exposure, language experience, and the T1 Knowledge score. Holding everything else constant, for every one unit increase in cross-cultural exposure, Knowledge scores would increase by .864 (B = .864, p = .034), for everyone one unit of increase in language experience, Knowledge scores would increase by 1.41 (B = 1.41, p = .011), and for every one unit of increase in T1 score, Knowledge scores would increase by .341 (B = .341, p < .001). (Table A1)

For the CQ Knowledge sub-dimensions, these same predictors accounted for 15.5% (r^2 = .155) of the variance for Business, 8% (r^2 = .080) of the variance for Values, 63.1% (r^2 = .631) for Linguistics, and 24.4% (r^2 = .244) for Leadership (Table A3). It is important to note the high predictive significance of the model for Linguistic Knowledge. For Business, only the T1 score was predictive of the T2 score with every one unit increase in T1 score leading to a .355 increase (B = .355, p < .001). For the Values sub-dimension, there were no significant predictors in the model. The Linguistics sub-dimension analysis revealed that Language Experience and the T1 score were predictive. For every unit increase in Language Experience, the T2 Linguistics score would increase by 2.90 (B = 2.90, p = .001) and for every unit increase in T1 Linguistics score, the T2

score would increase by .677 (B = .677, $p < .001$). Three variables were predictive of the Leadership score. Participation in Group 3 showed every one unit of increase would lead to a 39.19 increase (B = 39.193, p = .004) in T2 score. Every unit of increase in GLST Courses would lead to a 5.70 (B = -5.703, p = .001) decrease in T2 Leadership score. And the final predictive variable for this sub-dimension was the T1 score, with every unit of increase leading to a .286 increase (B = .286, $p < .001$) in T2 Leadership score.

The third CQ dimension is Strategy. In the CQ-T2 Strategy scores ($r^2 = .263$), 26.3% of the variance in overall Strategy was a result of the following predictors: group, language experience, cross-cultural exposure, cross-cultural travel, total GLST courses, and travel during the semester (Table A1). This leaves 73.7% of the variance unexplained by the model, so it is acknowledged that there were many other predictors contributing to CQ Strategy scores. Of these, there were only two significant predictors of T2 Strategy scores: participation in Group 2 – the experiential class – and the T1 Strategy score. Participation in Group 2 showed every one unit of increase would lead to a 3.19 increase (B = 3.193, p = .037) in T2 score and for every one unit of increase in T1 score, T2 Strategy scores would increase by .268 (B = .268, $p < .001$). (Table A1)

Table A3
CQ Knowledge Subdimension Regressions: Outcome - T2 CQ Score

Variables	B	Std Error	β	t-stat
Outcome: CQ Knowledge Sub Business				
$R^2 = 0.155$				
Constant	47.515	7.371		6.446***
Experiential	1.193	3.729	0.026	0.32
Study Abroad	22.031	20.024	0.243	1.100
Total GLST Courses	-3.660	2.541	-0.314	-1.440
Exposure	0.372	0.661	0.046	0.563
Language Experience	-0.065	0.915	-0.006	-0.071
Travel	0.168	0.405	0.040	0.414
Current Semester Travel	-4.631	6.124	-0.072	-0.756
Time 1 CQ Score	0.355	0.080	0.352	4.458***
Outcome: CQ Knowledge Sub Values & Norms				
$R^2 = 0.080$				
Constant	66.368	4.903		13.537***
Experiential	-0.847	2.153	-0.033	-0.393
Study Abroad	0.725	11.533	0.014	0.063
Total GLST Courses	0.294	1.467	0.045	0.201
Exposure	0.704	0.385	0.155	1.831
Language Experience	-0.027	0.532	-0.004	-0.050
Travel	0.167	0.242	0.071	0.687
Current Semester Travel	-2.041	3.540	-0.057	-0.576
Time 1 CQ Score	0.093	0.057	0.141	1.629
Outcome: CQ Knowledge Sub Linguistics				
$R^2 = 0.631$				
Constant	-1.327	5.662		-0.234
Experiential	5.106	3.140	0.086	1.626
Study Abroad	0.153	16.786	0.001	0.009
Total GLST Courses	0.764	2.135	0.052	0.358
Exposure	1.052	0.577	0.101	1.823
Language Experience	2.900	0.881	0.203	3.290**
Travel	-0.253	0.339	-0.047	-0.746
Current Semester Travel	2.573	5.148	0.031	0.500
Time 1 CQ Score	0.677	0.067	0.627	10.061***
Outcome: CQ Drive Sub Leadership				
$R^2 = 0.244$				
Constant	54.284	4.936		10.998***
Experiential	0.764	2.546	0.023	0.300
Study Abroad	39.193	13.508	0.603	2.901**
Total GLST Courses	-5.703	1.718	-0.682	-3.321**
Exposure	0.863	0.461	0.147	1.872
Language Experience	0.301	0.623	0.037	0.482
Travel	0.218	0.281	0.072	0.776
Current Semester Travel	-3.520	4.150	-0.076	-0.848
Time 1 CQ Score	0.286	0.064	0.359	4.493***

* p < .05; ** p < .01; ***p < .001

For the CQ Strategy sub-dimensions, these same predictors accounted for 20.7% (r^2 = .207) of the variance for Planning, 21% (r^2 = .210) of the variance for Awareness, and 20.3% (r^2 = .203) for Checking (Table A4). For Planning, three variables were predictive in the model. Participation in the Group 3 showed every unit increase would lead to a 34.19 increase (B = 34.197, p = .015), GLST courses showed every unit increase would lead to a 4.27 decrease (B = -4.274, p = .016), and the T1 score revealed every one unit increase in T1 score would lead to a .290 increase (B = .290, p < .001) in T2 score. Awareness also revealed three predictive variables in the model. Participation in Group 2 showed every one unit of increase would lead to a 3.75 increase (B = 3.754, p = .015) in T2 score while Exposure showed every one unit of increase would lead to a .574 increase (B = .574, p = .038) in T2 score. The T1 score was also predictive for Awareness with every unit of increase leading to a .51 increase (B = .197, p < .001) in T2 score. The data for the sub-dimension of Checking showed only T1 scores were significantly predictive. Every unit of increase in the T1 score would lead to a .232 increase (B = .232, p < .001) in T2 Checking score.

Table A4
CQ Strategy Subdimension Regressions: Outcome - T2 CQ Score

Variables	B	Std Error	β	t-stat
Outcome: CQ Strategy Sub Planning				
$R^2 = 0.207$				
Constant	60.911	5.559		10.957***
Experiential	2.935	2.564	0.089	1.145
Study Abroad	34.197	13.831	0.530	2.473*
Total GLST Courses	-4.274	1.751	-0.515	-2.441*
Exposure	0.613	0.463	0.105	1.324
Language Experience	-0.254	0.634	-0.032	-0.400
Travel	-0.019	0.279	-0.006	-0.067
Current Semester Travel	-1.548	4.221	-0.034	-0.367
Time 1 CQ Score	0.290	0.061	0.372	4.781***
Outcome: CQ Strategy Sub Awareness				
$R^2 = 0.210$				
Constant	68.503	4.036		16.975***
Experiential	3.754	1.532	0.189	2.450*
Study Abroad	7.300	8.205	0.189	0.890
Total GLST Courses	-1.147	1.043	-0.231	-1.100
Exposure	0.574	0.274	0.165	2.098*
Language Experience	0.391	0.379	0.082	1.032
Travel	-0.020	0.167	-0.011	-0.121
Current Semester Travel	2.698	1.522	0.099	1.070
Time 1 CQ Score	0.197	0.043	0.353	4.629***
Outcome: CQ Strategy Sub Checking				
$R^2 = 0.203$				
Constant	65.309	4.014		16.269***
Experiential	2.059	1.605	0.100	1.283
Study Abroad	4.644	8.568	0.116	0.542
Total GLST Courses	-0.228	1.090	-0.044	-0.209
Exposure	0.336	0.294	0.093	1.141
Language Experience	0.427	0.394	0.086	1.084
Travel	-0.085	0.174	-0.045	-0.489
Current Semester Travel	-0.392	2.632	-0.014	-0.149
Time 1 CQ Score	0.232	0.045	0.404	5.102***

* $p < .05$; ** $p < .01$; ***$p < .001$

The final overall dimension was CQ Action. In the overall CQ-T2 Action scores ($r^2 = .292$), 29.2% of the variance in overall Action was a result of the following predictors: group, language experience, cross-cultural exposure, cross-cultural travel, total GLST courses, and travel during the semester (Table A1). This leaves 70.8% of the variance unexplained by the model, so it is acknowledged that there are many other predictors contributing to CQ Action score. Of the predictors analyzed, the only significant predictor of the overall T2 Action score was the T1 score. For every one unit of increase in T1 score, the T2 Action score would increase by .402 ($B = .402$, $p < .001$).

Two of the CQ Action sub-dimensions only showed the T1 scores as statistically significant predictors (Table A5). For Speech Acts, every unit increase would increase the T2 score by .347 ($B = .347$, $p < .001$) and for Non-verbal every unit increase would increase it by .390 ($B = .390$, $p < .001$). However, the Verbal sub-dimension showed four statistically significant predictors: Group 3 participation ($B = 42.32$, $p = .009$), GLST Courses ($B = -4.888$, $p = .017$), Exposure ($B = 1.134$, $p = .039$), and T1 score ($B = .296$, $p < .001$).

While this model did not identify broad statistical significance, there are indicators that cultural exposure, language experience, and participation in the experiential learning group or the study abroad group were predictive of some of the variance in T2 scores. Further research to explore the impact of these variables is needed.

Table A5
CQ Action Subdimension Regressions: Outcome - T2 CQ Score

Variables	B	Std Error	β	t-stat
Outcome: CQ Action Sub Speech Acts				
$R^2 = 0.219$				
Constant	51.015	5.395		9.456***
Experiential	2.375	2.515	0.073	0.944
Study Abroad	5.231	13.540	0.082	0.386
Total GLST Courses	-0.791	1.729	-0.097	-0.457
Exposure	0.449	0.448	0.078	1.001
Language Experience	0.508	0.620	0.064	0.819
Travel	0.108	0.274	0.036	0.393
Current Semester Travel	1.464	4.130	0.032	0.354
Time 1 CQ Score	0.347	0.062	0.426	5.558***
Outcome: CQ Action Sub Verbal				
$R^2 = 0.237$				
Constant	50.038	5.763		8.682***
Experiential	3.061	2.947	0.079	1.039
Study Abroad	42.323	15.976	0.559	2.649**
Total GLST Courses	-4.888	2.027	-0.501	-2.411*
Exposure	1.134	0.544	0.166	2.083*
Language Experience	0.913	0.728	0.097	1.255
Travel	0.242	0.323	0.068	0.749
Current Semester Travel	-4.169	4.897	-0.078	-0.851
Time 1 CQ Score	0.296	0.069	0.340	4.300***
Outcome: CQ Action Sub Non-Verbal				
$R^2 = 0.284$				
Constant	52.477	5.577		9.409***
Experiential	0.892	2.865	0.023	0.311
Study Abroad	20.638	15.365	0.272	1.343
Total GLST Courses	-2.769	1.957	-0.284	-1.415
Exposure	0.655	0.518	0.096	1.265
Language Experience	0.314	0.708	0.033	0.444
Travel	0.078	0.312	0.022	0.248
Current Semester Travel	-1.365	4.738	-0.025	-0.288
Time 1 CQ Score	0.390	0.061	0.493	6.398***

* p < .05; ** p < .01; ***p < .001